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IPH 5180

A Mixed Methods Approach to
exploring Mental Health Nurses
Diabetes Education and Skills
Needs

Submitted to Middlesex University in
fulfilment of the requirements for the
degree of Doctor of Professional
Studies

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School of Health and Social Sciences

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Glossary of abbreviations

List of abbreviations

CPD	Continuous Professional Development
CNO	Chief Nursing Officer
DoH	Department of Health
DProf	Doctorate in Professional Studies
DRC	Disability Rights Commission
HEI	Higher Educational Institution
MHN	Mental Health Nurse
MHSU	Mental Health Service User
NICE	National Institute for Health and Clinical Excellence
NSF	National Service Framework
TNA	Training Needs Analysis

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Abstract

Diabetes is emerging as a clinical practice and educational concern in mental healthcare. However, there is little research into the diabetes education and skills needs of practitioners such as Mental Health Nurses. Furthermore, there is very little research into Mental Health Service Users experiences of diabetes or diabetes care and how these could be used to enhance the education and training of Mental Health Nurses in this area.

This research project used a mixed methods research approach to explore Mental Health Nurses diabetes education and skills needs from the view of both Mental Health Nurses and Mental Health Service Users. A quantitative Training Needs Analysis survey was undertaken in 2008 with a sample of 220 Mental Health Nurses regarding their diabetes care education and skills needs. 146 responded giving a response rate of 66%. The results of this survey were used to develop a qualitative interview schedule to explore the experiences of diabetes care of a purposive sample of seven Mental Health Service Users in 2011 and how these experiences could be used to inform Mental Health Nurses diabetes education and training.

This study found that diabetes care is becoming a frequent care activity for Mental Health Nurses. While the sample reported prior training in diabetes care, this was predominantly in the period of student nurse training. This has an implication for the currency of clinical skills and knowledge. Mental Health Nurses reported varying levels of general and specific knowledge of diabetes. They also reported varying levels of confidence in aspects of diabetes care such as recognising symptoms of diabetes, knowledge of local diabetes services and liaison with local diabetes services. There was a recognition that further training was required and the sample reported high levels of motivation to attend training and retain diabetes care as an area of Mental Health Nursing practice.

Mental Health Service Users reported negative experiences of diabetes care. This consisted of stigma, diagnostic overshadowing, a splitting of mental and physical health and low levels of confidence in Mental Health Nurses ability to provide diabetes care. Service Users broadly agreed with Mental Health Nurses expressed training needs but felt that education and training on stigma and how this can be a barrier to diabetes care is a priority area for education.

This study recommends that Mental Health Service Users experiences of physical illness, in this instance diabetes, should be a foundation part of any training and education of Mental Health Nurses in this area. This is because these experiences can promote critical reflection on practice and encourage professionals to reflect on negative attitudes that may be an unwitting barrier to care. It also recommends that service users are more involved in identifying education and training needs so that education is responsive not only to the needs of nurses and Higher Education Institutions, but service users also.

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Chapter 1: Introduction

The physical health of Mental Health Service Users (MHSUs) is a contemporary policy and practice concern in mental healthcare. Evidence consistently shows that MHSUs have poor physical health (Phelan et al 2001). Nationally Harris and Barraclough (1998) found higher standardised mortality rates (SMRs) in MHSUs than the general population for conditions such as cardiovascular disease (SMR 250), respiratory disorders (SMR 250) and Infections (SMR 500). This means that MHSUs die 2.5 times more often from cardiovascular disease and respiratory disorders and five times more often from infections than the general population. Internationally evidence suggests a loss of between 13 to more than 30 potential years of life in MHSUs compared with the general population (Colton and Manderscheid 2006), with Parks et al. (2006) finding that MHSUs die, on average, 25 years earlier than the general population.

Poor physical health in MHSUs

Reasons for poor physical health in MHSUs are listed in table 1. However, Nash (2013 in press) suggests that inequalities in health, stigma and diagnostic overshadowing are under-investigated reasons for poor physical health.

Table 1: Explanations of poor physical health in MHSUs (Nash & Rethink 2012 in press see appendix 1)

Poor lifestyle choices	Low practitioner confidence in physical health
Adverse Drug Reactions	Stigma and diagnostic overshadowing
Genetic factors	Poverty and health inequity
Inappropriate response to symptoms	Undetected physical illness
Poor monitoring of physical conditions	Un-coordinated physical care
Lack of practitioner training	

While the evidence paints a dispiriting picture, it also offers a solid rationale for exploring Mental Health Nurses (MHNs) education, skills and training needs in physical healthcare in general; and diabetes in particular. Enhancing MHNs knowledge and skills in physical health, for the provision of safe and competent physical health care, is an emerging issue in nurse education (Nash 2010).

This project is the final part of a Doctorate in Professional Studies in Health (DProf) where the overarching aim has been the development of MHNs physical care knowledge and skills. The specific research focus of this study is an examination of MHNs diabetes care knowledge and skills.

Study Rationale

Teddlie and Tashakkori (2009:116) suggest four sources for developing research ideas,

“...intuitions based on previous experiences, reactions to practical problems, results from previous research and theory or conceptual frameworks”

The rationale for this current research project derives from three of these criteria;

1. Intuitions based on previous experiences – in my clinical, managerial and academic experience MHSUs physical health is often overlooked in practice and educational programmes
2. Reactions to practical problems - liaison with local NHS Mental Health Trusts who were identifying physical care as an urgent training need following care review recommendations
3. Results from previous research - in my previous DProf project (IPH 5140), I examined the physical care skills and training needs of MHNs in community

and inpatient settings. This showed that diabetes was the physical condition with the biggest impact on MHN physical care activity. It also constituted the biggest perceived learning need. This was published in a peer-reviewed journal and presented at conference (see appendix 2).

Mental Healthcare is embracing a new pluralism where MHSUs input is actively sought in policy, service development and evaluation. In keeping with this philosophy of inclusion, I became aware that research conducted in the area of physical health (including my own) was largely professionally driven and often lacking a MHSU perspective. Therefore, I felt that exploring MHSUs experiences of diabetes care would give an added dimension to MHNs education and skills needs. This would make a valuable contribution to professional learning on a number of fronts such as

- MHSUs involvement in identifying education and trainings needs of MHNs,
- promote partnership and collaboration which is an important component of diabetes management and
- using real life MHSUs experiences to help learning and promote critical reflection on practice

Context of the project

In this era of inter-professional working and service user involvement, contexts for research are seldom unitary. This project has both macro and micro contexts. For example, macro contexts include physical health of MHSUs as a contemporary issue in mental health care and the concern that the physical health of MHSUs is frequently poor (Phelan et al 2001). The micro contexts include education and practice for appropriate clinical skills and knowledge, a policy driven context with the review of mental health nursing (Department of Health (DoH) 2006a) and a wider NHS organisational context of providing high quality care in times of

austerity. These different contexts have influenced the choice of topic to investigate and will be discussed here.

Macro contexts

MHSU Physical Health: The evidence base

MHSUs tend to have worse health when compared to the general population. This results in poorer outcomes in two key areas; higher mortality and higher morbidity from long term conditions that are effectively managed in the general population (Disability Rights Commission (DRC) 2006). The UK National Psychiatric Morbidity Survey showed high levels of physical ill health and higher rates of death amongst those with mental health problems compared to the rest of the population (DoH 1999a).

Diabetes has emerged as a major clinical concern in mental healthcare. The prevalence of diabetes in MHSUs is significantly higher than the general population; Bushe and Holt (2004) estimating a prevalence of type 2 diabetes in people with schizophrenia as 2 – 4 times greater. In respect to MHSUs with bipolar disorder, Cassidy et al (1999) found the prevalence of diabetes mellitus to be almost three times that of the general population.

Research by the DRC (2006), shows that MHSUs live longer with unrecognised and untreated diabetes, which can increase the risk of severe complications. De Hert et al (2009) suggest that the increased mortality rates in MHSUs can be attributed, in part, to increased risk of the modifiable factors such as diabetes.

Micro contexts

The cruel irony behind the statistics is that in many cases MHSUs are in contact with health care professionals, and in the majority of cases MHNs, but physical

health remains poor. This is most probably due to the emphasis and focus on the presenting mental health problem rather than a discounting of physical health needs. Mental Health Nursing has always espoused a philosophy of holistic care. However, Nash (2010) has questioned the veracity of this espousal in light of the poor physical health and health outcomes for MHSUs. Yet, little research exists relating to MHNs knowledge and skills in this area. One could presume, however, that a lack of knowledge and skills in diabetes may diminish the ability of MHNs to recognise symptoms and provide effective and timely care.

The education and practice context

In 2000 Jordan et al asked the question “*Does mental health nursing need the biosciences?*” They suggested that the answer is yes because inadequate preparation of MHNs in biological sciences may mean, “*they will not be able to meet their professional obligations*” (Jordan et al 2000:883). Physical care depends on a biological science knowledge base (Jordan and Reid 1997). Therefore, while diabetes care is complex the theory underpinning nursing care is straightforward to teach due to the high biological science content. Diabetes education requires a large proportion of propositional knowledge – therapeutic blood glucose levels, blood glucose monitoring, risk factors or types of insulin treatments. However, MHN education and practice does not appear to have any strategic direction regarding the importance of biological sciences and physical health education and skills. Jordan et al (2000) found that both students and lecturers agreed that the common foundation course in bioscience was biased towards adult nursing students and failed to meet the needs of MHNs.

It may be that the problem is the lack of a specific mental health context for the application of biological sciences curricula rather than a problem with biological sciences content (Jordan et al 2000). Therefore, it is anticipated that the MHSU aspect of this study, their unique experiences of diabetes care, can bring a

counterbalance to the biological science content. For example, knowing the therapeutic blood glucose level is not the same as experiencing the effects of it.

The MHN profession will need to develop a coherent education and skills agenda to keep pace with public health challenges such as diabetes and associated complications e.g. obesity and coronary heart disease. The Chief Nursing Officer's review of mental health nursing (DoH 2006a) sets a broad agenda for improving MHN practice with recommendation seven stating;

"MHNs will have the skills and opportunities to improve the physical well-being of people with mental health problems."

However, it does not stipulate specific areas of training only broad types of skills required. The Knowledge and Skills Framework (KSF) (DoH 2004) fulfils this dilemma, in part, as it seeks to; *"identify the knowledge and skills that individuals need to apply in their post"*.

There is no real consensus as to what types of knowledge or skills are required or where and when these should be introduced. Should it be at undergraduate level to prepare students for the future, at post-registration level where MHNs have more responsibility for clinical decision making, or in specialist areas only e.g. in respect to nurse prescribing?

In practice terms, the context makes for grim reading. Phelan et al (2001) state many mental health practitioners have little training in physical care. In respect to MHNs Gournay (1996) found that the monitoring of physical health by Community Mental Health Nurses (CMHNs) was generally unsatisfactory with 8 out of 11 districts studied having no protocol for monitoring physical health. Nash (2005) found evidence of MHNs providing physical care without training or experience. In respect of knowledge, Nash (2010) found that qualified MHNs did not have appropriate propositional knowledge of basic physical health issues in mental health nursing practice e.g. only five participants out of 88 knew the therapeutic

blood plasma level of lithium, which would be one of the few clinical measurements MHNs would be required to know.

The lack of evidence relating to the physical care training needs of MHNs is therefore surprising. MHNs are the largest occupational group in mental health care (DoH 2006b) and they tend to know more about their clients than other team members because they spend more time with them (Jackson and Stevenson 2000). This may place MHNs in an important strategic position for screening and identifying symptoms of complex conditions such as diabetes. However, without the concomitant knowledge and skills in this area MHNs may not have the confidence to undertake such work.

The Policy Context

While the physical healthcare of MHSUs is high on the policy and practice agenda, this agenda lacks clarity, which is a constraining factor in meeting these healthcare needs. A range of policies and guidelines exist e.g. significant policies include National Service Frameworks (NSFs) that were introduced as a way of setting national standards for services and models for service delivery, aimed at ending the 'post code' lottery of care through equality of access to health care services. NSFs are available in a number of areas and those relevant to this project include Diabetes (2001a), Coronary Heart Disease (DoH 2000a) and Long Term Conditions (DoH 2005b). Evidence based guidelines have also been developed that can bridge the policy – practice gap, for example the development of Diabetes and Obesity Clinical Guidelines by the National Institute of Health and Clinical Excellence (NICE).

Yet, a significant problem with policy is synthesising it from paper to embedded practice. For example, the NSF for Mental Health does not mention, or refer to the other NSFs even though diabetes and coronary heart disease are reasons for high mortality and morbidity in MHSUs. Nash (2010) suggests that this reflects a

partisan approach to policy implementation where it is still unclear just how effectively NICE guidelines and NSFs have been integrated into mental health services for the provision of truly holistic care.

The lack of joined up policy implementation may be a reason for the traditional lack of focus on physical health needs. Without a coherent, or holistic, framework to assess and manage these needs, they may slip off the radar, despite their prevalence and impact on service users. However, the policy agenda for MHNs is developing with the report of the Chief Nursing Officer's review of Mental Health Nursing (DoH 2006a) recommending the development of physical care skills as an important area for MHNs practice.

The NHS Organisational context

In these times of wider economic instability and austerity measures, there is a danger that NHS training budgets will be used to reduce financial deficits. Pitcher (2007), reports that £547m in training budgets was used to fund NHS Trust financial deficits. The reality of the choice facing NHS leaders and managers may be between the least worst options of patients not getting treatment due to lack of finances or having an under skilled workforce. However, this seems like a short-term gain over long-term stability.

The risk of having an under skilled workforce is the inadvertent contribution to increased health care costs if knowledge and skills are not up to date. If MHNs are placed in a position of not being able to access appropriate training and professional development opportunities, the result may be sub-optimal care. This can reduce the quality of care and patient outcome but also raises practical, professional and ethical concerns regarding MHNs practice. This project offers a partnership model for identifying MHNs education and skills needs in diabetes care with the added dimension of service user input.

Personal context for the project

Jordan (2000) suggests that

“...by developing a research agenda for educational effectiveness, teacher researchers can empower themselves to monitor the curriculum and demonstrate their contribution to patient care”

As a Lecturer in Mental Health, I have a desire and duty to contribute to my community of practice and my profession. Physical care in general and diabetes care in particular, remain a largely under assessed area of learning need in mental health. Therefore, there is an opportunity to lead in this area and begin to foster new knowledge that develops the MHN profession and professional practice.

Furthermore, there is also the incentive of promoting evidence based and inclusive curriculum development. Jordan et al (2000) suggest that curriculum restructuring should be informed by service users' views of their needs. I think MHSUs experiences are a valuable, yet neglected, form of evidence that can contribute enormously to developing MHNs skills in this area, but also increase their understanding of coping with dual complex conditions. A personal driver is my own academic and professional development in pursuing a higher qualification. However, the process of completing this DProf has already enriched my career with publications and conference presentations.

Project outline

This project has commenced with an introduction in Chapter 1 that has outlined the importance of physical health and diabetes to MHNs and an exploration of the various contexts of the research. Chapter 2 will define the terms of reference for the project, outline the research objectives and include a research statement and questions. A literature review will also be undertaken, which will explain how the literature shaped and influenced this study. Chapter 3 will examine the research

methodology employed in this project and consider the rationale for this. It will also examine research roles adopted during the project and limitations of the method will be discussed. Chapter 4 will discuss project activity and the development of the data collection tools and examine data analysis. Chapter 5 will be a presentation of key findings of the research in respect to MHNs education and skills needs in diabetes care. Chapter 6 will be a discussion that will integrate the main aspects of the project as a whole and strive to demonstrate personal learning through reflecting on issues such as leadership in education and clinical practice. It will also consider factors that contributed or hindered the research activity. The final chapter, chapter 7, will outline products from the research and conclude the project with recommendations for the development of education and training for MHNs in the area of diabetes care.

Chapter 2: Terms of Reference, Research Objectives & Literature Review

Introduction

This chapter will provide a literature review and detailed literature search strategy including databases and key search terms used. The terms of reference for the project will be defined and the research objectives stated including research questions. This chapter will also identify and critically reflect how the existing literature shaped and influenced this project, especially in relation to methodology. The literature review will explore MHNs education and training and examine MHSU input to curriculum development.

The terms of reference for the project

Sharpe et al (2004) suggest that there is now a requirement for evidence based teaching in order to bridge the theory-practice gap. However, a broad interpretation of what evidence based teaching is, is required. I believe that evidence based teaching is more than using tried and tested teaching and learning methods, it extends into what is actually taught; how we find a curriculum that meets various stakeholder needs and which can transform practice.

Objectives of the Literature Review

- To determine previous work in this area
- To explore factors that influence MHN education and training
- Examine methods employed in TNA
- Examine MHSU involvement in identifying training needs
- Determine how this can inform the current project methodology

Research objectives and questions

The main study objectives are to get a picture of current clinical practice in diabetes care. This will entail mapping MHNs past training and education in this area and an assessment of their skills, knowledge and confidence in this area. A critical review of practice will come from exploring MHSUs experiences of diabetes care to determine if this can contribute anything to the identification of MHNs education and training needs regarding diabetes care.

On a personal level, this project will help to develop my awareness of the complexities involved in identifying MHNs education and skills needs and engagement with key stakeholders from the perspective of an outsider researcher.

The key research questions are

1. What are MHNs diabetes education and skills needs
2. What are MHSUs experiences of receiving diabetes care by MHNs
3. How can MHSUs experience contribute to a better understanding of MHNs diabetes education and skills needs
4. What recommendations can be derived from this work regarding the process of developing MHNs education and skills in physical care

What purpose does a literature review serve?

The literature review is one of the fundamental building blocks of any research project. It helps to determine if gaps in the literature exist and how research can contribute to the body of existing knowledge. Hart (2009:1) suggests that a literature review serves to,

“...justify the particular approach to the topic, the selection of methods, and demonstration that the research contributes something new”.

A literature review requires a clear structure in order to be systematic. Appropriateness is the key component of the literature review and this would refer to the key search terms and databases/journals and articles retrieved and reviewed. The dates of the search are also important to ensure contemporary relevance. However, other important literature may not be of an academic nature e.g. government policy that drives change, so relevant policy documents also need to be examined.

Literature Search Strategy

A literature search of multiple databases was undertaken to explore the diabetes education and training needs of MHNs and of MHSUs experiences of diabetes care. Both MeSH and keyword search terms were used to identify appropriate publications for the literature review. Mental Health Nurse was a MeSH term under psychiatric nurse. The search was limited to English language, peer reviewed publications published between 1982 and 2011.

Databases searched included CINAHL [1982 - March 2011], Medline [1986 – March 2011], PsychInfo [1985 – March 2011], British Nursing Index and Archive [1995 – Feb 2011], The RCN Journals Database [1985 – March 2011] and OVID Full Text [1985 - March 2011].

The Department of Health and National Institute of Health and Clinical Excellence (NICE) websites were also searched to examine the policy perspectives regarding this issue.

The literature search was conducted in two stages;

Stage 1

MHNs Diabetes Education and Training Needs

1. Training Needs Analysis
2. Learning Needs Analysis
3. Mental Health Nurse
4. Psychiatric Nurse
5. Community Mental Health Nurse
6. Community Psychiatric Nurse
7. Diabetes care skills

(Psychiatric nurse is used as an alternative search term as this is an alternative title for MHN.)

Stage 2

MHSUs experiences of diabetes care

1. Mental Health Service User
2. Experiences of diabetes
3. Mixed Methods

Results of Literature Search

Terms were searched separately and then combined in different groups (see appendix 18 for detailed searches). For example, training needs analysis (n=12,359), mental health nurse (n=25,579) and diabetes care skills (n=793) were searched individually and then combined together (final result n=6). The same process was repeated for each combination of psychiatric nurse (23,466 final total

n=1), community mental health nurse (4,755 final total n=1) and community psychiatric nurse (4,109 final total n=0).

In all thirteen articles were identified for mental health nurses training needs analysis and diabetes care skills but some of these were overlaps between searches. The abstracts of returned searches were screened by title and method to select those that closely met the study purpose. After screening all articles only seven papers were identified for inclusion in the literature review for MHNs training needs analysis.

The same process was employed for searching the literature regarding MHSUs experiences of diabetes care. Thirty one articles were identified for the MHSU part of the study. However, when abstracts were screened these papers covered only experiences in mental health care with none on experiences of diabetes. One article was included as it used a mixed methods approach. The main articles retrieved had their reference sections checked to look for other relevant articles. Burnard (1993) refers to this as an incremental search of the literature. Appendix 18 outlines the literature search strategy in more detail.

The results of the literature review show a paucity of published research in this area, making it an emerging and valid area for investigation. The only direct 'hits' were articles published by the author e.g. physical care training needs of MHNs (Nash 2005), diabetes care skills training needs analysis (Nash 2009), monitoring physical adverse drug reactions in MHSUs . This articles are primarily products of this DProf programme.

The literature review highlighted two gaps in research. Firstly, TNA for MHNs usually focuses on those skills necessary for psychiatric interventions e.g. general therapy skills (Devane et al 1998) or working with personality disorders, psychosocial interventions and dual diagnosis (RCN 2001). Even in clients with substance misuse disorders, physical health training needs were not explicitly identified as a training priority (Nash 2005).

Secondly, much of the writing on curriculum development is from a pre-registration level perspective. This leaves a gap in respect of what post-registration curriculum should be and how this should be mapped and developed. This has clear implications for Higher Education Institutions (HEIs) in respect of planning and provision of relevant courses for qualified MHNs and how these meet MHSUs needs.

Thirdly, while MHSU involvement is a policy and practice objective in services, involvement in higher education is not as advanced e.g. Higgins et al (2011) found that the vast majority of course curricula they researched was planned and delivered without consultation or input from service users. Therefore, involving MHSUs is an emerging area of practice in higher education.

Defining the context

Planning the right type of education for nurses to meet today's healthcare demands is essential (Claflin 2005). In mental health nursing, post-registration curriculum development requires an evidence base. However, Jordan (2000:461) suggests that, *"there is little empirical evidence that CPD enhances the care delivered to patients"*. A lack of service user input into curriculum development may be partly responsible for this.

Jordan (1994:418) also alludes to a 'Theory – Practice gap' in nursing which is defined as *"...the divide between abstract, possibly esoteric, concepts and the real problems of everyday clinical practice"*. Diabetes care for MHNs may be illustrative of a practice – theory gap, where MHNs are aware of diabetes as a 'real problem of everyday clinical practice' but may not have had the appropriate theory to be able to bridge this gap effectively.

Nevertheless, MHN education needs to be inclusive and include the service user experience in the generation of its theory. If 'patients' are no longer to be seen as

passive recipients of care, how can they be passive recipients of the education and training that underpins the care?

Curriculum development and Mental Health Nursing

Definitions of curriculum are naturally imbued with educational perspectives, coalescing around organizational behaviour in HEIs that is designed to enhance the student learning experience. Bevis (1989:72) defines curriculum as the,

“...transactions and interactions that take place between students and teachers and among students with the intent that learning take place”

Keating (2006:2) suggests that curriculum is

“...the formal plan of study that provides the philosophical underpinnings, goals and guidelines for the delivery of a specific educational program.”

A general difficulty in defining ‘curriculum’, as both definitions illustrate, is the broadness of the term. Glatthorn et al (2005:3) suggest that, *“curriculum has been used with quite different meanings”*. Bevis and Keating’s definitions omit the service user as someone who should be involved in the curriculum process. In healthcare education there is the added complexity that students do not only interact with tutors or each other. They are part of a tripartite relationship that includes the service user/patient and definitions of curriculum tend not to include those on whom the curriculum is practised.

Glatthorn et al (2005) categorise curriculum into five types (see table 2) which I have aligned to potential influences.

Table 2: Curriculum type and potential influence

Curriculum Type	Potential influence
Recommended curriculum	Policy makers, professional bodies, experts
Written curriculum	HEI, NHS stakeholders
Supported curriculum	Available resources in HEI or practice area
Taught curriculum	Evidence base of content, lecturer knowledge and skills
Learned curriculum	Increased quality of practice, change in learner knowledge or attitude

Keogh et al (2010) suggest that the traditional approach to curriculum development involves developing the curriculum and then consulting with stakeholders. This is a rather traditional interpretation of curriculum development and one that does not represent the current drive for stakeholder involvement in the entire process. Traditional views such as this may stifle innovation in seeking out stakeholder involvement. MHSU involvement is a contemporary reality in mental health and this is reflected in this project. I felt a collaborative approach between key stakeholders was required to determine the diabetes education and skills needs.

What influences mental health nursing education?

Simpson (2006) suggests that educational development is complex as there is a need to ensure courses meet the requirements of various governing bodies, such as the Nursing and Midwifery Council, which set professional standards and competencies, which are then mapped to specific learning outcomes. Oermann (2007) suggests that nursing education research is not guiding our teaching. A critical reflection on my own teaching brought me to question where the curricula content came from. Who decides on what new knowledge is generated raises questions of power and authority dynamics and hence the importance of equitable relations (Lawson 2004). My literature review illustrated a tendency for lecturers to over reflect on their teaching methods and under reflect on the origins of curricula

they teach. Oermann (2007) suggests that reflection like this is a crucial step because, unless we ask questions, we continue to teach as it has “always been done”.

Government Policy

The DoH (2001b:26) outlines government ambitions to,

“...create a patient centred NHS...where the voice of the patient is heard through every level of the service, acting as a powerful lever for change and improvement and...towards a model of partnership, whereby citizens have a greater connection with their local services, and have a say in how they are designed, developed and delivered.”

Changes to clinical practice are often driven by government policy. The New NHS: Modern, Dependable (DoH 1997:5) has targets for the *“effective delivery of appropriate healthcare which focuses on clinically effective care delivered by appropriately trained and educated staff.”* The need for high quality care is a goal that can be achieved by good clinical governance, risk management and protection of the public (DoH 1999b). This is underpinned by Continuing Professional Development (CPD).

While CPD is a key factor underpinning clinical governance and increasing quality in the NHS development programmes need to go beyond meeting the learning needs of practitioners to meeting the needs of service users and the wider service development needs of the NHS (DoH 1999b). However, this aspect seems more *fait accompli* than evidence based – what type of curricula is required to underpin governance (content) and who decides what this content will be?

Naturally mental health curriculum development leans toward the knowledge and skills to provide high quality mental health care. Nash (2005) notes that this has served to weaken the concept of holistic care in MHN as physical care skills are under-developed and MHSU health outcomes so poor. From a project perspective,

the NSF Diabetes (DoH 2001a) helped in constructing some of the quantitative questions around knowledge and skills e.g. in liaison with diabetes services and qualitative questions e.g. concerning empowerment and decision-making in managing diabetes.

The Chief Nursing Officer's (CNO) review of mental health nursing (DoH 2006a) is a specific policy driver for this subject area. To strengthen pre-registration nurse education, CNO's review recommends that users and carers should be routinely involved in four key areas of the educational process: recruitment, curriculum planning, teaching and assessment (DoH 2006a). While this is aimed specifically at pre-registration education, I feel it should also apply to post-registration education and training too.

The main criticism of the policy drivers is that they seem to be written from the perspective that mental health practitioners, such as MHNs, have up to date knowledge and skills. This may not be the case where (Nash 2011) found a gap in the knowledge of MHNs in basic concepts of physical health care.

What is clear is the DoH (2006b:16) statement that *"commissioning of education and training needs to be informed by a Training Needs Analysis"*. Thus health policy implementation is a significant driving force in the development of curricula which aims to bridge the policy - practice gap is bridged. By extension this places a significant pressure on HEIs to ensure it's curricula is responsive to these policy drivers.

Professional bodies

Professional bodies such as the Nursing Midwifery Council (NMC) also play a role in MHN education and training by dictating the nursing curriculum and pursuing a professional theory and knowledge and practice base that underpins nursing practice. The NMC is committed to strengthening practice with the introduction and

development of four competency sets for each branch of nursing; (i) professional values, (ii) communication and interpersonal skills, (iii) nursing practice and decision making and (iv) leadership, management and team working (NMC 2010). These pre-registration competencies for nurses can make a positive contribution to the emerging physical health agenda in mental health.

For example, the nursing practice and decision making competency makes reference to all nurses having an in-depth knowledge of common physical problems and treatments including co-morbidity and physiological and psychological vulnerability. To achieve this MHNs must “carry out comprehensive, systematic nursing assessments that take account of relevant physical factors ... through interaction, observation and measurement” (NMC 2010). Furthermore, the leadership and management competency requires all nurses to work effectively across professional and agency boundaries. This will be of particular relevance to the primary and secondary care management of complex, co-morbid conditions like diabetes, where MHNs may not be the primary care givers but will have a liaison role between mental health and general healthcare services.

Nurses have a requirement to keep up-to-date. Gass et al (2006) suggest that in the UK attention has been focussed on meeting the requirements of fitness to practice for nurses. However, MHNs have traditionally lacked specific guidance to do this effectively in regard of the physical health agenda. This might have been a constraining factor for MHNs in physical health as they may feel they cannot meet physical care needs as these are traditionally outside of their scope of practice.

The NMC competencies, however, appreciate the importance of competencies for students in physical health and this can give HEIs a strategic direction in incorporating physical health into pre-registration nursing curriculum. The challenge, however, for HEIs will be facilitating the crossover of these competencies from pre-registration to post-registration nursing education as there are no corresponding NMC post-registration competencies.

Other health care professions

Other healthcare professions also have an impact on nursing education and training e.g. changes to junior doctors working hours has meant more nurse practitioner roles and more multi-disciplinary working (Ford 2009). Yet such large scale change (not forgetting nurse prescribing) shows that nurses are a highly adaptable workforce. Nursing curriculum has managed to keep apace with these 'grander' organisational changes even though the nursing workforce hold reservations about its nature, or scale e.g. Ford (2008) found many nurses had serious concerns about taking on the role of junior doctors, especially at night. However, Nash (2005) found that MHNs did not want to pass the responsibility for providing physical care to general nurses and that MHNs were highly motivated to engage in training.

Higher Education

Carlisle et al (1999) state that the place of nurse education is now becoming more established in Higher Education Institutions (HEIs). HEIs also work under a quality framework whose priorities also impact on training and development. Any curricula must be provided to a level that can gain accreditation and strengthen, rather than weaken, the HEI's reputation. O'Driscoll et al (2010) suggest that there is a deficit of leadership for learning manifested by the 'uncoupling' of education and practice following the move of nurse education into higher education. However, the collaborative nature of this project lends itself to strengthening my own leadership skills. For example, being involved in evidence based teaching practice and involving various stakeholders in curriculum development are examples of re-coupling practice and education (O'Driscoll et al 2010).

HEIs need to increase collaboration and involve practitioners and service users more in the curriculum development process. Simpson (2006) suggests that MHSU involvement in education has been more hesitant than in service provision but

points to the Quality Assurance Agency for Higher Education recommendation of increased involvement of service users in all aspects of health and social care education (QAA 2005). Oermann (2007:250) suggests that,

“...if there were more high quality, rigorous local studies done in nursing education, the findings would eventually provide the critical mass for synthesis”.

However, Pardue et al (2006) found that in a survey of 219 nurse educators covering a range of nursing programmes, more than half did not partner students in designing educational programmes while under half surveyed stated that they did not partner with nursing services in designing educational programmes.

Gibbs et al (1994) suggest that knowledge is not produced in the enclosed space of the university but in the context of application. By examining diabetes care from both professional and service user perspectives, I felt that learning needs could be more effectively identified. This may also reconcile competing needs i.e. the needs of professional bodies, MHSUs needs for quality care and HEI and NHS organisations needs to work effectively in commissioning education and training.

Lecturer's likes

DeSilets (2006) suggests that we are often tempted to develop educational content based on a hunch or a bias as we think we know what the audience needs. Nurse lecturers usually have clinical backgrounds which inform their teaching practice and subject matter. Lecturers are able to bring a mix of the rhetoric of theory with the reality of practice that learners value. This is true of my own experience. However, my clinical practice is not recent and I feel that service user input is valuable for me to get a contemporary reality to any policy or professional rhetoric.

Jordon et al (2000:887) suggest that

“...unless curriculum planning is based on the views of all stakeholders, there is a danger that lecturers will be unduly influenced by their own academic backgrounds.”

Therefore, the process of investigating the learning needs of MHNs might be threatening to lecturers not skilled in research or by being so long out of practice they are unfamiliar with new trends, such as the problem with diabetes. This will mean lecturers may need to change their practice and some might find this threatening. Therefore, HEIs may also need to invest in their own workforces' skills so they can involve service users more, conduct TNA for curriculum development, or in developing the skills to deliver the curriculum.

Local NHS Service Management

Dyson et al (2009) suggest that health care management often pays 'lip service' to ongoing education initiatives, as this area is often the first to be cut when financial restraints are necessary.

The DoH (2006b) has set four key priority areas in modernising nursing careers

- Develop a competent and flexible nursing workforce
- Update career pathways and career choices
- Prepare nurses to lead in a changed health care system
- Modernise the image of nursing and nursing careers.

HEIs need to develop a curriculum that meets these priority areas. Mostly it works at the pre-registration level where the requirement is to prepare students for independent practice. CPD at post-registration level is usually a matter for the individual and is dictated by internal and external motivating factors e.g. specialist interests or requirements of professional bodies and work organisations. However, meeting the needs of current service users should be a key feature of CPD.

Edwards (2008:131) suggests that trends in curriculum design are subservient to NHS management bureaucracies – it reflects what managers want for corporate

governance where in *“many cases the NHS corporate mentality prevails”*. There is an element of truth in Edwards’ assertion in relation to this project, which originated from local NHS Trust managers desire to provide physical care training to staff. This affirms what Cheek and Gibson (1997) suggest that identifying areas for development is usually reactive in nature and has institutional interests in mind. I have made specific recommendations that recognise both managerialism and professionalism issues;

- physical health care skills should be mandatory training for MHN
- assessing physical health care skills should be a mandatory part of the annual Individual Performance Review (IPR) for MHNs.

IPR and employee development in the NHS are guided by policies such as Agenda for Change and the Knowledge and Skills Framework (KSF) (DoH 2004). The basic concept is that each nursing job can fall into a designated pay scale based on a job profile which considers knowledge and skills required to perform at that level. This method then links performance to NHS pay grades in nursing. Therefore local NHS Service Management should have a general idea of service training requirements derived from IPR. However, the Audit Commission (2001:1) found

...“one third of NHS staff have not had development needs identified and that training needs across services are not systematically identified”.

IPR has the potential to impact on HEIs curriculum development, constraining design into narrow, ‘mechanical’ governance requirements rather than an educational and learning philosophy that promotes a deeper level of appreciation of theory and practice. Furthermore the HEI has only a provider role in this, which can disempower it when looking to broaden the curriculum. Changes to nursing pay grades is an external motivation which can impact on curriculum development – individuals may opt for courses that can enhance their salary rather than what may be most beneficial to service users.

Mental Health Nurses

Jordan et al (1999) suggest that little empirical evidence on the clinical effectiveness of education programmes exists. Nevertheless, CPD is a key principle of clinical governance. However, tensions may exist between what organisations require of their staff in respect of CPD and what professional bodies require of them for professional practice. For example, in times of austerity there may be more of an emphasis on mandatory in-house training in areas such as food hygiene and moving and handling. While such training is important and highly transferable, this training does not enhance MHN as a profession as it is a mandatory requirement of many staff groups.

Research in physical care training needs finds that MHNs feel unprepared to take on the demands of the role (Nash 2005). Indeed, Nash also suggests that in some cases MHNs reported involvement in physical care activity without appropriate training. However, in the same research MHNs are found to be eager to learn new skills in this area, but probably more importantly not to 'surrender' this area of practice to other nursing disciplines.

MHSU Participation in Mental Health Nurse Education

Hicks et al (1996) suggest that many post-registration courses are constructed and delivered in a haphazard way, without systematic reference to the direct and indirect consumers of the educational programmes. Jordan et al (2000:881) suggest that, *"wider stakeholders, particularly health service users, are rarely consulted on the knowledge base expected of practitioners."* However, MHSU input is a key driver of change in national health policy (DoH 1999a) and international health policy where the World Health Organisation (WHO 2010:8) recommends that mental health professional training is designed *"in systematic partnership with users and carers"*.

MHSU involvement has grown beyond service planning, delivery and evaluation and into the classroom. Skar (2010) states that several studies have questioned how well nursing education provides students with the knowledge and skills needed to practice. This may be a reflection of the lack of user involvement in curriculum development where service users' perspectives regarding issues on knowledge and skills could make an invaluable contribution to the quality of nurse education. While little evidence exists as to the effectiveness of curricula developed with and without the input of MHSUs, intuitively one has to assume that MHSU involvement is inherently good and at worst benign. This is because including the experiences of what it is like to be ill or on the 'receiving' end of care, can help develop critical reflection and by extension promote empathy with MHSUs experiences.

Jordan (1994:421) suggests that *"explicit links need to be made between the individuals' learning and their environments"*. However, 'patients' have been a largely neglected part of the learning environment as Jordan et al note above. Yet Crawford et al (2002) in a systematic review of service user involvement found such involvement contributed to changes in the provision of services, positive changes in attitudes of organisations to involving patients and positive responses from patients who took part in such initiatives.

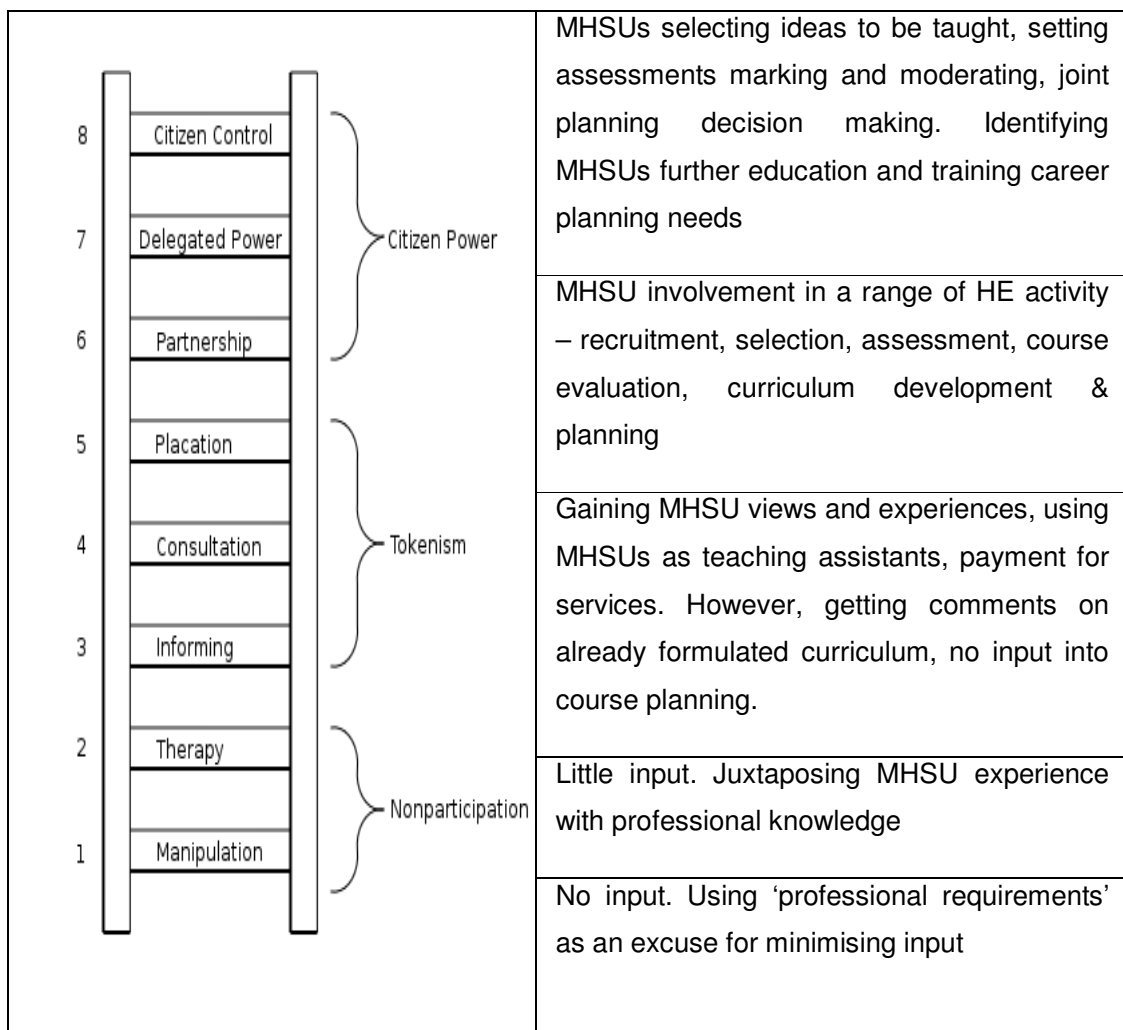
I have used Arnstein's "Ladder of Citizen Participation" (1969) to illustrate MHSU's participation in MHN education. This ladder has a typology of eight levels of participation (see figure 1 below). I have juxtaposed some examples of types of involvement of MHSUs in education adapted from Repper and Breeze (2006) to illustrate how this ties with the notion of MHSUs involvement.

However, the nature of what MHSU involvement in MHN education should be has not been fully explored in respect to what constitutes tokenism or citizen power. For example, Higgins et al (2011:5) state that in their study, MHSU involvement in MHN education in Ireland was, *"limited to tokenism in planning and delivery with*

little involvement in programme management". Yet planning curriculum content and how it is delivered is an integral part of Arnstein's (1969) model.

Furthermore, effective identification of MHNs education and skills *requires* MHSUs input and this principle is not new. Rudman (1996) explored MHSUs views of pre-registration nursing curriculum using semi-structured group interviews. He found that service users wanted an emphasis on 'curing' as well as the rational knowledge MHNs require for practice.

Figure 1 - Arnstein (1969): "A Ladder of Citizen Participation" applied to MHN curriculum development



Chitty (2001) defines collaboration as the process of toiling directly with other individuals in an attitude of teamwork that benefits the organization, individuals, and health care consumers. Collaboration is a key feature of mental health policy. For example, within health and social care there has been a broad programme of service integration e.g. the creation of specialist health and social care trusts and integrated community mental health teams (DoH 1999a). Leutz (1999) suggests that there are three levels of integration in health and social care;

- (a) linkage which is a minimalist approach to integration operating within existing systems and characterised by fragmented and ad hoc partnerships systems,
- (b) co-ordination which involves the development of defined structures or mechanisms that help to alleviate confusion, poor communication, fragmentation, and discontinuity to promote information sharing and
- (c) full integration via a 'virtual' network that functions through contractual relationships.

Reflecting on my experience of this project, I felt that collaboration and integration in Higher Education has not kept pace with health and social care organisations and I would suggest we are currently in a 'linkage' state of integration. This project has found that while some links exist, e.g. my incorporation onto NHS trust groups, more strategic integration is required. A more strategic collaboration and integration is required so that effective development and commissioning of education can be pursued with collaboration with MHSUs a key aspect of this.

However, this type of linkage may not be transparent when exploring training and development issues where Findlay (2005) suggests that the approach to post-registration nurse training needs has been arbitrary and almost entirely based on personal interest or manager's conjecture. Maloney and Kane (1995) suggest that traditional needs assessments for continuing education reflect personal interests

and perceptions of learning needs rather than actual knowledge deficits. Hence, the need to move toward a more co-ordinated approach to integration as suggested by Leutz (1999); underpinned by MHSU input.

Such collaboration in TNA is required to enable HEIs to develop more responsive curricula that meets practitioners and MHSUs needs. In the same way that collaboration is the key to innovation in developing integrated health and social services (Lawson 2004), collaboration between HEIs and ‘the services’ will be vital to develop curricula and sustain learning in times of austerity and rapid change.

Claflin (2005:269) states that,

“...learning must be relevant to the current environment in which healthcare is delivered, including the environment in which the nurse works”.

Constant change in healthcare services and the current austerity constraints may affect nurses’ ability to engage in CPD so targeted development through TNA may mitigate against this. However, Grant (2002) suggests that, TNA is often missed and what follows is *ad hoc* curriculum reflecting system rather than professional requirements. The approach adopted in this project would reconcile service goals of user involvement and redress the balance between system and professional needs by promoting service user input. Service users are an under-appreciated part of the learning environment. Having their unique insights into care experiences can only enhance the accuracy of identifying learning needs leading to more valuable learning experiences for MHNs.

Mullins (2010) suggests that learning is a self managed process of acquiring new knowledge and skills with the aim of increasing performance. However, TNA occurs within an organisational or professional context with service users seldom included. The research methodology adopted here differs from the literature review as it includes the views of service users, which can be an effective balance to the subjective nature of MHNs felt needs in respect to diabetes education and skills.

Combining the views of MHNs and MHSUs can make training more responsive to both groups needs.

Beetham (2002) suggests that teaching and learning developments need to offer a translation of what practitioners do so that they understand the cumulative effects of their practice, which will go toward making practice more meaningful. Ball and Cohen (1999:5) sum up my own critical reflection of developing MHN education. They state that,

“...those who want teaching and learning to become much more ambitious face a significant challenge: how to construct a substantial approach to professional learning—one that takes a comprehensive perspective on the relations between professional development and the improvement of teaching and learning”.

Critical reflection on my curriculum development activity

Personally, I feel that at times my dual role as a lecturer and as a MHN leads me to question how I can effectively bridge the divide between my current non-clinical role as a lecturer and my profession as a nurse. I feel that the process used in this project has helped me to resolve this issue. Jordan (2000:466) suggests that

“...fieldwork is an opportunity for academics to return to clinical work, and, by linking theoretical knowledge to real-life situations, to contribute to care.”

Researching with MHNs and MHSUs is a way of keeping in touch with clinical practice issues but also about building effective partnerships for curriculum development. This approach values the work experience of nurses and the lived experiences of service users.

My curriculum development activity, like identifying MHNs education and skills needs, is governed by a hierarchy of influence, which may not represent the most informed opinion from a practice perspective. For example, Rolfe et al (2008)

found that the four most frequent influences on nurse's practice were national guidelines, their own past experience, local policies and patients' preferences.

I feel that curriculum development requires some level of emancipation so that the emphasis on who drives change is redistributed to those who practice and who receive it most. This will involve a realignment of the power structure so that MHNs and MHSUs have more input into identifying learning needs and how these will be met.

Critically reflecting on this project, I have found it contains an inverse relationship, where government policy and professional bodies have a greater influence on my ideas than practitioners' and service users (see figure 2). Therefore, I have adopted a 'bottom-up' approach to identifying diabetes education and skills needs. This is still based on a general health policy framework, however, I feel an advantage of this approach is increased ownership of ideas and collaboration with key stakeholders. Goodson (1994) suggests that a lot has been written about curriculum development but issues such as who constructs the curriculum, why and for whom have been neglected.

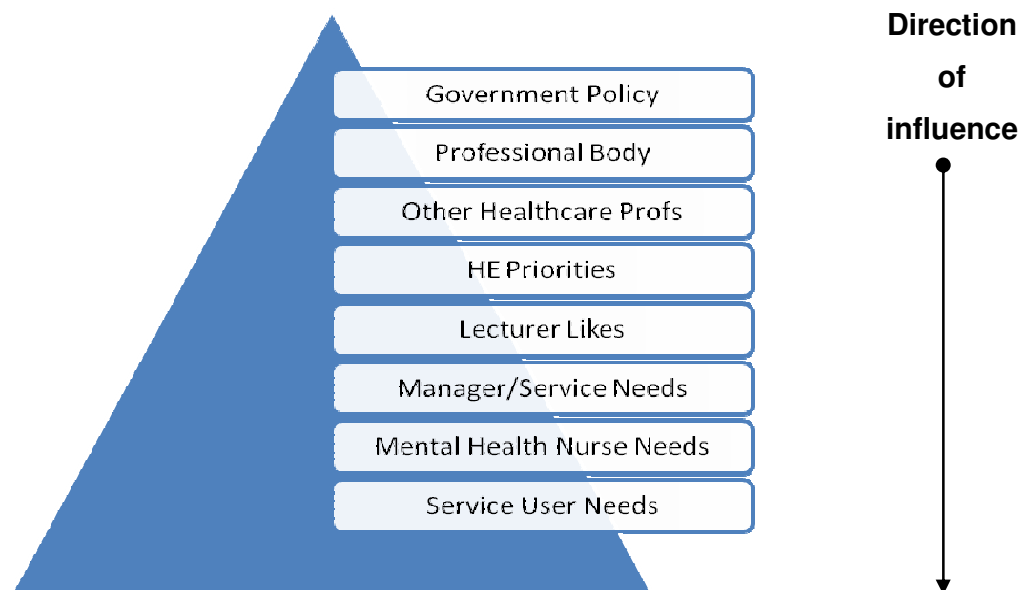


Figure 2 A conceptual model of influences on my curriculum development

This project has taken a proactive approach to identifying MHNs diabetes care skills and education needs. However, not everyone appreciates this type of development. Bevis (1989:p27) takes quite a cynical view that curriculum development is *“something one does to keep from getting bored with teaching the same thing everyday”*. It is certainly a controversial opinion. However, Bevis does neglect the fact that our training and education courses need to keep a pace with changes to practice and that, especially with professional courses; we need to have a contemporary and relevant curriculum that meets practitioner’s needs and service user’s expectations of care.

The process of exploring MHNs education and training needs through partnership and collaboration is important for HEIs in ensuring curriculum credibility. The goal here is to ensure that HEIs outreach to health care providers and service users to ensure their curricula remains current and reflective of stakeholder needs. In healthcare, change can be so fast that the agenda may have moved leaving the HEI with a dated curriculum. The type of co-operation involved in this project is designed to give HEIs the opportunity of displaying leadership in being proactive, rather than being reactive, in shaping nurse education.

Conclusion

Does practice change? Jordan (2000) suggests that there is little empirical evidence that continuing professional development has enhanced the quality of care given to patients. However, one may intuitively assume that increasing knowledge and skills of MHNs in the area of diabetes care will enhance the quality of the care delivered. However, as benign as this assumption is, only a well-structured research investigation will determine if it is true.

DeSilets (2006) suggests that skilled educators are experienced at taking the needs of the target audience into consideration when planning any learning activity. However, Nash (2010) asks who is the target audience; the MHN in the

classroom or the MHSU in their living room? The prevailing orthodoxy of user involvement in mental health makes it difficult for HEIs not to consider the needs of MHSUs in the development of educational courses.

This literature review has examined available evidence regarding MHNs education and training needs and has found that both stakeholder groups have a limited and probably non-strategic input into this. We have seen the inverse relationship that influences MHN education and while protagonists may have the power to dictate curriculum, they may lack the necessary authority to do so. Hussey and Smith (2003) suggest that elements of the curriculum interact and influence each other in supporting active learning, readily reflecting what happens in classrooms. I would expand this to include service users and practitioners who influence and support each other, consciously or unconsciously in the process of learning. It is important therefore that both sets of needs are taken into consideration when developing education programmes.

HE institutions need to ensure that their curricula are contemporary, evidenced based and resonate with the needs of multiple stakeholders. This is no easy task. However, collaboration is the key to achieving a curriculum that resonates with all constituencies. The literature review argues that HEIs need to develop meaningful partnerships for developing post registration curriculum, and that TNA constitutes a way of developing more strategic links with NHS organisations to strengthen commissioning of courses.

The literature review has enabled me to explore issues in the development of MHN education. It has illustrated that traditional power bases have had a disproportionate influence in this process. However, it has also indicated that MHNs and MHSUs are distant voices in this process and have a lot to offer in this area. The literature review has helped to focus the research aims, develop research questions and terms of reference. It has also illustrated the limited research in this area hence this has helped me to refine my area of investigation.

The literature review has influenced and informed my selection of research method. TNA tools are quantitative in nature and usually address needs from an organisational point of view. They seldom, if ever, contain any input from service users. Therefore, I decided that a Mixed Method Research approach would be employed in exploring MHNs diabetes education and skills needs. This is because MHSUs have unique experiences of diabetes care that can serve to enrich the educational experiences of professionals.

Chapter 3: Research Method

Introduction

MHNs education and training needs and influencing factors have been discussed in the literature review. Diabetes is an emerging educational and training need that falls outside of the traditional boundaries of MHN practice. As physical health becomes more of a clinical practice concern, we will require suitable means of exploring training needs. This chapter will outline the development of the methodological framework employed in the study. It will explain the rationale for adopting a mixed-methods research approach, while also critically examining its advantages and disadvantages for this project. It will explain the rationale for the sequential nature of the mixed methods approach. Ethical issues encountered during the research project will also be examined. This chapter will also outline my investigator's role as an outsider researcher with regard to the both sets of study participants.

Research Paradigms

In order to explain the adoption of a mixed method research approach, it would be beneficial to explore the assumptions of quantitative and qualitative research paradigms. Exploring the philosophical basis of each paradigm will then allow progression onto the rationale for a selecting a pragmatic paradigm approach.

Prior to commencing any research project, researchers must carefully consider the philosophical assumptions of each research paradigm as this will influence the choice of research method. Guba and Lincoln (1994:105) define paradigm as the basic belief system or worldview that guides the investigator and they go on to suggest that each paradigm has different assumptions regarding knowledge and methods of inquiry. These assumptions serve to act as a coda for researchers in

the field. Polit and Beck (2004:14) have outlined these major assumptions of positivist and naturalistic paradigms see table 3 below.

Traditionally, research is characterized as a dichotomous split between the positivist (quantitative) and the naturalistic (qualitative) paradigms. The quantitative paradigm, Sale et al (2002) suggest, is characterised by empirical research which reduces phenomena to empirical indicators which represent truth; an objective reality that exists independent of human perception, where investigator and investigated are independent of each other. In this objective world, independence is characterised by researchers being immune to the influence of subjects or even their own values.

The qualitative paradigm, on the other-hand, is based on constructivism, where research stresses the socially constructed nature of reality (Denzin and Lincoln 2011: 8). Creswell (2013: 4) suggests that qualitative research is a “means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem.” Qualitative researchers do not begin research with a hypothesis to disprove, rather they seek to provide understanding through the interpretation and explanation of human experience. The emphasis is not on quantifying experience but on constructing meaning from complex human interactions.

To clarify these differences further, Bryman (2012: 28) characterizes the differences between quantitative and qualitative as a “clash reflecting a division between an emphasis on the explanation of human behavior (quantitative) and the understanding of human behavior (qualitative). Sale et al (2002) suggest that these different assumptions about truth and knowledge have resulted in an entrenchment of views characterized by each paradigm having its’ own journals, sources of funding different expertise and of course, different methods. This entrenchment is reminiscent of what Gage (1989) referred to as “the paradigm

war”; debates about the merits and demerits of qualitative and quantitative research which contributed to an entrenchment of views about the most effective way of conducting research.

Table 3 Major assumptions of positivist and naturalistic paradigms (Polit and Beck 2004)

Assumption	Positivist Paradigm	Naturalistic Paradigm
Ontologic (What is the nature of reality)	Reality exists; there is a real world driven by real natural causes	Reality is multiple, subjective and mentally constructed by individuals
Epistemologic (The relationship between the researcher and those being researched)	The researcher is independent from those being researched	The researcher interacts with those being researched and findings are the creation of the interaction
Axiologic (What is the role of values in the inquiry)	Values are held in check – objectivity is sought	Subjectivity and values are inevitable and desirable
Methodologic (How is knowledge obtained)	Seek generalisations Emphasis on discrete concepts Fixed design Quantitative information and statistical analysis Control over context Focus on the product	Seeks patterns Emphasis on the whole Flexible design Narrative information and qualitative analysis Contextualised study Focus on product and process

One concern with this presentation of assumptions is that it may accentuate the differences, or incompatibility, of combining both research traditions. Howe (1988) disputed the incompatibility thesis (the assumption that mixing qualitative and quantitative methods was incompatible) rather suggesting that no good reason existed, at either the level of practice or that of epistemology, for educational researchers not to use pragmatic approaches to research.

However, the tension between these contrasting research philosophies can be a constraining force in research. Guba and Lincoln (1988) suggest that the different paradigm assumptions, outlined above, have led to a dichotomy between quantitative and qualitative methods. This in turn has led to conflict in determining which approach constitutes the 'best' path to knowledge/truth. Howe and Eisenhart (1990) suggest that a result of this paradigm split is that basic approaches to research are characterized in terms of various dichotomies; facts versus values, objectivity versus subjectivity, fixed categories versus emergent categories, the outsider's perspective versus the insider's perspective. The danger with this is that helpful research findings may be dismissed within a battle over methods or innovative approaches spurned because they too perish on an altar of epistemology.

While these positions appear to be irreconcilable, mixed methods research offers us the potential to combine methods and possibly combine paradigms. Rather than seeing research paradigms as dichotomous, Burke Johnson and Onwuegbuzie (2004) visualize them on a continuum with qualitative research anchored at one pole and quantitative research anchored at the other with mixed methods research covering the large set of points in between. This also means the definition of mixed methods can be extended to include the mixing of paradigms. This characterisation is quite appealing as it is within the spirit of mixing rather than compartmentalising methods, which may be why mixed methods research is often described as the third research paradigm (Onwuegbuzie & Leech 2004), helping to bridge the gap between quantitative and qualitative research.

Terry and Cutter (2013) suggest that using a mixed methods research approach allows qualitative data to elicit rich stories from the quantitative data relating to participants' experiences. In this study a mixed methods design was used to gain insight into MHNs diabetes education and training needs. The quantitative methods permitted a generalized examination (a macro view) of MHNs self-perceived education and skills needs and this was combined with a detailed and in depth view of how MHSUs experienced diabetes care. The latter, qualitative

method, allowed for a micro view of diabetes care which sought to interpret the meaning of participants' experiences and endeavour to use this meaning to give deeper understanding to the quantitative data.

Furthermore, Burke Johnson and Onwuegbuzie (2004) suggest that qualitative and quantitative research share similarities about the nature of truth and knowledge, about the role of values in research and how to interact with research participants (see table 4 above). Furthermore, researchers from both paradigms disseminate their research findings following a formula that includes a literature review, a description of methods employed, explanation of data analysis, a presentation of findings, a discussion that usually examines methodological weaknesses and a conclusion that normally has findings or outcomes based on the research. It would not be too 'strange' therefore to suggest that both methods can be merged. As Sandelowski (1986) points out, both paradigms also incorporate safeguards that serve to minimize bias and increase validity and reliability. Therefore, having a philosophical framework to guide the research is one of the principles of ensuring rigour, as situating research in a philosophical paradigm will contribute to the study's overall coherence.

Study philosophical framework: Pragmatism

What is pragmatism?

An emerging third research paradigm is pragmatism. Burke Johnson and Onwuegbuzie (2004) suggest that knowledge is both constructed and based on the reality of the world we experience, therefore mixing methods is a more holistic research philosophy than having a one or the other approach. Pragmatists believe that at times mono-methods may not be best suited to research and combining methods is acceptable to arrive at workable solutions. Pragmatism

does not subscribe to the entrenched dichotomy between qualitative and quantitative paradigms, believing rather, that they can be mixed.

Brannen (2009) suggests that mixed methods research has been associated closely with pragmatism which Creswell (2003), suggests is a pluralistic philosophy that rejects the traditionally enforced choice between quantitative and qualitative methods. Therefore, pragmatism rejects the various dichotomies suggested by Howe and Eisenhart (1990) above and allows researchers to combine methods in order to best answer their specific research questions (Burke Johnson and Onwuegbuzie 2004).

Carey (1993) suggests that quantitative and qualitative methods are merely tools and integrating them allows us to answer questions of substantial importance. Carey's background is public health where he felt not enough effort was made in making methodological linkages between both paradigms. He suggests

"...to bridge the gap between the two approaches, researchers should maintain a flexible and pragmatic perspective regarding selection and use of methods" (Carey 1993:298)."

In this regard, Niglas (2009) suggests that pragmatists, while accepting major differences between quantitative and qualitative research, advocate the integrated use of different methodologies if this can advance our understanding about the phenomenon under the investigation. I have tried to characterise my paradigm assumptions of pragmatism in this research project in the same ways as Polit and Beck have above in the following, table 4.

Table 4 Paradigm assumptions of this mixed method project (adapted from Burke Johnson and Onwuegbuzie 2004)

Assumption	Pragmatic Paradigm
Ontologic (What is the nature of reality)	Constructed <i>and</i> based on the reality, therefore it changes over time
Epistemologic (The relationship between the researcher and those being researched)	Replaces epistemologic distinction of subject and object with process oriented organism and environment
Axiologic (What is the role of values in the inquiry)	Value oriented approach endorsing shared values such as democracy and freedom
Methodologic (How is knowledge obtained)	Uses a combination of methods to find workable solutions. The research question is more important than the method as the question will determine the most appropriate methods to mix.

I felt these characteristics fitted especially well with this project where exploration of MHSUs experiences of diabetes care could give added content to the examination of MHNs diabetes education and skills needs. Furthermore, I felt that a mixed methods approach would complement the philosophy of work based learning which Costely et al (2010: xiv) suggests provides *“new ways of making meaning and new ways of making enquiries into meaning.”*

Real world research in healthcare is complex. However, I felt that mixed methods, which rejects traditional dualisms, is a reflection of the increasing pluralism in mental healthcare. To this end, I see pragmatism as a philosophy of problem solving and in healthcare, the involvement of key stakeholders is a key ingredient to successful problem solving. Therefore, pragmatism is a pluralistic methodology and one suited to examining diabetes education and skills needs from both professional and patient worldviews.

What is Mixed Methods Research?

Denzin and Lincoln (2011:109) suggest that the goal of quantitative research is to *“...seek and find cause and effect linkages that can build into a better understanding of the field”*. Sale et al (2002), suggest that the emphasis of qualitative research is on process and meanings. While these positions are thought to be irreconcilable, mixed methods research offers us the potential to combine methods and possibly combine paradigms.

Burke Johnson and Onwuegbuzie (2004:17) define mixed methods research as,

“...the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study.”

Tashakkori and Creswell (2007:4) are more elaborate in their definition of mixed methods research by including data analysis, interpretation and inference as aspects of a mixed method,

“research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study”.

Rationale for selecting a Mixed Methods Research approach

Tashakkori and Creswell's definition above illustrates the approach taken in this work. While the controversy surrounding the problems with mixing methods, based on perceptions of various incompatibles outlined above exists, I decided that this study would be suited to this type of method because the process of care giving involves professional nurses and 'lay' service users, who may share different perspectives on the same research question.

Sarantakos (2005) suggests that a key weakness of qualitative research is the inability, due to small sample sizes, to generate findings that are representative of

the whole population. He also suggests that qualitative findings are subjective and cannot guarantee to be free of an interpretation bias. Conversely Burns (2000) suggests that quantitative research has weaknesses such as not recognising the complexity of human activity/experience when trying to control all the variables, it can also lack objectivity as the researcher is subjectively involved in the choice of a problem to investigate and therefore data analysis and interpreting results. I did not think that a mono-methodology could adequately investigate such a complex issue. There are meta-narratives in care giving; in this case MHNs and how they perceive their diabetes skills needs and MHSUs and how their experiences can be used to determine if there are other needs.

Knowledge is a complex concept in health, relating to not only what we know, but also how this is applied in clinical practice. Professional knowledge is a concept that can contribute to a power differential between the MHN and the MHSU. Within clinical practice, Higgs and Titchen (1995) suggest that clinicians draw upon three types of knowledge;

- Propositional knowledge – ‘scientific’ knowledge that is generalisable and developed through research and scholarly activity,
- Professional craft knowledge – gained through experience, participation in and reflection on practice
- Personal knowledge – awareness of oneself in relation to others, this is difficult to articulate as it is often tacit and usually invisible in the process of crafting policy.

Diabetes care is an emergent area in mental healthcare. MHNs need to have knowledge and skills in a range of areas – propositional and professional craft knowledge in respect of biological sciences, clinical skills in measurement of signs and symptoms, knowledge of medication and diabetes management, knowledge of local diabetes services and primary care organisation. However, there is also the experience of living with diabetes from a MHSU perspective; how this impacts on the experience of mental illness and vice versa and the

complexity of coping with two complex long term conditions. An understanding of the experience of living with diabetes should increase MHNs personal knowledge. Therefore, an inclusive approach to exploring MHNs diabetes education could not be undertaken without exploring both stakeholder views; and I did not think this could be adequately examined using a mono-method.

I feel that modern mental healthcare is now something seldom seen as 'done' to a patient, but 'with' a service user. Eraut (1994) suggests that an uncritical application of propositional knowledge to a practice situation is inadequate in the complex social context in which professional practice occurs. In this spirit of collaboration, I felt that using a mixed methods design would allow me to contrast MHSUs care experiences with the issues of MHNs clinical practice and education. The mixed methods approach would enable fuller exploration of MHNs education and training needs in diabetes care, with the qualitative part of the study facilitating a deeper context and depth of the quantitative part. I also felt that MHSU input into education and training may be a way of reducing the professional power differential as it can enhance MHNs personal knowledge using real life experiences; which can have a powerful impact in educational terms.

The literature review illustrated that MHSUs involvement is now widely accepted in health service planning, delivery and evaluation and is now a core principle in UK mental health policy. The DoH (1999a:109) also states that, "*service users and carers should be involved in planning, providing and evaluating education and training*". MHSUs involvement in Higher Education, however, has been slower to respond to this agenda. The lack of MHSU involvement in curriculum development, has been recognised as a challenge for Higher Education (Higgins et al 2011) who state that in their study the vast majority of curriculum planning and delivery occurs in the absence of consultation with service users. Therefore, I felt that seeking the views of MHSUs regarding training needs would add a valuable experiential dimension to the TNA. The literature review also showed

that such experiential dimensions are missing from traditional TNA approaches and this remains a weakness of such evaluations.

Therefore, I felt that the pragmatism of mixed methods approach could mirror the rise in pluralism in mental healthcare. I felt that such pluralism should be reciprocated in academic and research endeavours. The literature review illustrates how this is coming about, albeit slowly. However, as an extension of this I felt that the mixed methods approach could produce outcomes reflective of views of 'professional' practitioners and 'lay' service users. This would enable the development of a curriculum that reflected the needs of both constituencies.

In mixed methods, contrasting results may emerge from both strands of research. I felt that it would be beneficial to determine if MHSUs shared the views of MHNs regarding training and skills needs. This would offer a unique insight into the perceived knowledge and skills of MHNs in this area; mapped against the reality of being a MHSU with diabetes. This also offers us the opportunity of widening our understanding of training and skills needs from the 'consumer' point of view. This model of TNA is an effective way of developing inclusive mental health curriculum by (i) having our post-registration learner/practitioners consulted on what the content of training should be and (ii) have our end users of education and training (MHSUs) input into what curriculum should be developed.

Overall, the mixed methods approach is inspired by the drive for increased MHSU participation, which is now a key element of health policy (DoH 1999a) which is now extending into health education. The theory of participation can be used to build inclusive educational practices see Arnstein's (1968) model of citizen participation earlier (see p38). Wilcox (1994:4) suggests that we need to take a stance about the level of participation we want, stating "*understanding participation involves understanding power: the ability of the different interests to achieve what they want*". I felt that incorporating the MHSU experience would not

only give added authenticity to education, but also the authority of experience, as this would highlight areas for training not covered by the TNA.

Mertens (2003) writes of a 'transformative paradigm' in research, which is,

"...characterized as placing central importance on the lives and experiences of marginalised groups such as ethnic minorities, the gay community, people with disabilities and the poor"

My research work in physical healthcare and mental illness has shown that a transformation in practice is required in order to increase the health outcomes of this group. I feel that the mixed methods approach will contribute to this transformation as it addresses the education and skills needs of practitioners from the two key stakeholders.

Summary

Greene et al (1989) give five broad reasons for selecting a mixed methods research design. These are contextualised within this research project and are meant to compliment what has already been discussed above.

1. Triangulation, where both methods can corroborate results

Polit and Beck (2012) suggest that qualitative data contextualizes the evaluation and improves the generalizability of the findings. Data integration in mixed methods research is similar to the process of triangulation (see p104 for discussion). A mixed methods approach was used in this project to determine if there was a sharing in education and skills priorities between MHNs and MHSUs. I felt that determining if practitioners and the practiced upon shared similar ideas or concerns about diabetes education and skills would give a very strong evidence base for curriculum development in this area.

2. Complementary where both methods can enhance, illustrate or elaborate on study findings

As an extension of data integration in respect of strengthening results, I felt that the experiences of diabetes care by MHSUs would enable me to elaborate on the findings and provide a deeper analysis of the results. Using a mixed methods approach may also highlight differences in opinions or priorities that again can enable the development of a more inclusive diabetes care curriculum.

3. Development seeks to use the results from one method to help develop or inform the other method

The quantitative TNA survey was used to develop the MHSU interview schedule so that results could be compared. This would serve to enhance the interpretation and explanation of study findings, giving both a professional and experiential service user context to the findings.

4. Initiation seeks the discovery of paradox and contradiction, new perspectives of frameworks, the recasting of questions or results from one method with questions or results from the other method

The discovery of divergent views has helped enhance the credibility of the study findings. For example, as the results section will illustrate, divergent views emerged regarding the context in which MHNs diabetes care skills should get used. This was based on MHSUs wanting to retain their independence when well but to work in partnership when unwell. They wanted MHNs to use their skills in a non-paternalistic way, in a way that promoted partnership between both parties.

5. Expansion seeks to extend the breadth and range of inquiry by using different methods for different inquiry components

Creswell and Plano-Clark (2010) suggest that mixed methods research helps answer complex questions where mono approaches to research alone may not. I feel that MHNs, as professionals, will have different views on diabetes education and skills needs than MHSUs, who are typically on the receiving end of care. However, far from being a clash of cultures or views, if differences do arise then they can be reconciled in a very inclusive curriculum. Furthermore, Andrew & Halcomb (2006) suggest that a key benefit of mixed methods research is that both quantitative and qualitative strengths can be incorporated into a study to minimise the effects of the weakness of both approaches.

Hierarchy of evidence

Hierarchies of evidence are becoming more common in ranking the strength of research methods to 'best' outcomes. Evans (2003) states that there are a number of hierarchies of evidence, which enable different research methods to be ranked according to the validity of their findings. These taxonomies usually begin with the method that can produce the 'strongest' evidence or the 'best' method of deriving the best evidence. Typically, they promote the positivist approach over the constructivist approach by placing experimental research - the randomised control trial, systematic review and meta-analysis - above non-experimental approaches that are quantitative descriptive or qualitative.

Daly et al (2007) in turn developed a hierarchy of for assessing qualitative health research (see figure 3 below). In it, it places descriptive research as level 3, which suggests a weak form of evidence. Strangely, level 1 uses the term 'generalizable' which is not typical for outcomes in qualitative research (see Guba and Lincoln p60). None the less, the use of taxonomies of evidence appear to serve as a guide to researchers for selecting ways to make their findings more valid; more 'scientific'.

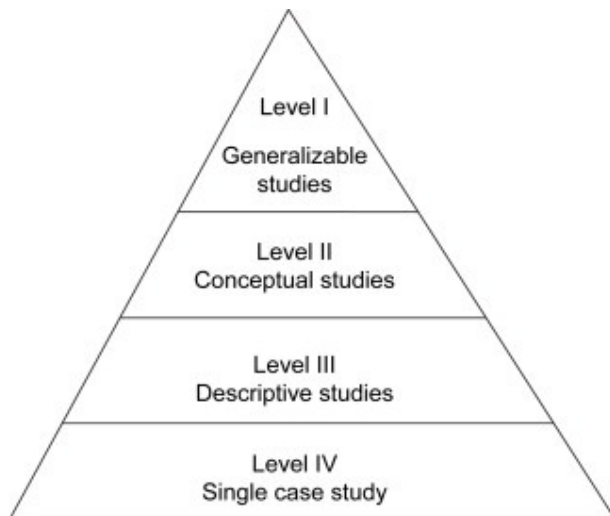


Figure 3 A hierarchy of evidence for assessing qualitative health research (Source Daly et al 2007)

Hierarchies of evidence may serve a purpose e.g. they may guide grant bodies or institutions towards research methods that may represent value for money regarding strength of evidence. However, they may also take us back to the paradigm war of quantitative versus qualitative research. Petticrew and Roberts (2003) suggest that a single hierarchy of methods has become increasingly unhelpful as they may disregard the issue of methodological aptness; that different types of research question are best answered by different types of study (p528).

Mixed methods research may not fit so neatly into such taxonomies as it is a method that spans both research paradigms. In using 'what works' it does not find itself with an 'either or' choice of methods (this is covered more in study limitations, chapter 6), but utilises the best of both to get workable solutions. In respect of this project, any 'evidence' derived from the data is descriptive and not experimental and therefore in the context of hierarchies of evidence, weak. However, it does not follow that it has no utility value. Petticrew and Roberts (2003:529) suggest that it may "be most useful... to consider what types of study are most suitable for answering particular types of question".

Diabetes Care and Mental Health Nursing Knowledge

Diabetes care is an emergent area in mental healthcare. MHNs need to have knowledge and skills in a range of areas – propositional and professional craft knowledge in respect of biological sciences, clinical skills in measurement of signs and symptoms, knowledge of medication and diabetes management, knowledge of local diabetes services and primary care organisation. However, there is also the experience of living with diabetes from a MHSU perspective; how this impacts on the experience of mental illness and vice versa and the complexity of coping with two complex long term conditions. An understanding of the experience of living with diabetes should increase MHNs personal knowledge. Therefore, an inclusive approach to exploring MHNs diabetes education could not be undertaken without exploring both stakeholder views; and I did not think this could be adequately examined using a mono-method.

I feel that modern mental healthcare is now something seldom seen as ‘done’ to a patient, but ‘with’ a service user. Eraut (1994) suggests that an uncritical application of propositional knowledge to a practice situation is inadequate in the complex social context in which professional practice occurs. In this spirit of collaboration, I felt that using a mixed methods design would allow me to contrast MHSUs care experiences with the issues of MHNs clinical practice and education. The mixed methods approach would enable fuller exploration of MHNs education and training needs in diabetes care, with the qualitative part of the study facilitating a deeper context and depth of the quantitative part. I also felt that MHSU input into education and training may be a way of reducing the professional power differential as it can enhance MHNs personal knowledge using real life experiences; which can have a powerful impact in educational terms.

Another rationale is the lack of MHSU involvement in curriculum development, which is a challenge for Higher Education. The literature review illustrated that MHSUs involvement is now widely accepted in health service planning, delivery and evaluation. However, Higher Education has been slower to respond to this agenda. Higgins et al (2011) state that in their study the vast majority of curriculum planning and delivery occurs in the absence of consultation with service users. Therefore, I felt that seeking the views of MHSUs regarding training needs would add a valuable experiential dimension to the TNA. The literature review also showed that such experiential dimensions are missing from traditional TNA approaches and this remains a weakness of such evaluations.

MHSU input into service planning, evaluation and delivery is now a core principle in UK mental health policy. The DoH (1999a:109) also states that, *“service users and carers should be involved in planning, providing and evaluating education and training”*. Therefore, I felt that the pragmatism of mixed methods approach could mirror the rise in pluralism in mental healthcare. I felt that such pluralism should be reciprocated in academic and research endeavours. The literature review illustrates how this is coming about, albeit slowly. However, as an extension of this I felt that the mixed methods approach could produce outcomes reflective of views of ‘professional’ practitioners and ‘lay’ service users. This would enable the development of a curriculum that reflected the needs of both constituencies.

In mixed methods, contrasting results may emerge from both strands of research. I felt that it would be beneficial to determine if MHSUs shared the views of MHNs regarding training and skills needs. This would offer a unique insight into the perceived knowledge and skills of MHNs in this area; mapped against the reality of being a MHSU with diabetes. This also offers us the opportunity of widening our understanding of training and skills needs from the ‘consumer’ point of view. This model of TNA is an effective way of developing

inclusive mental health curriculum by (i) having our post-registration learner/practitioners consulted on what the content of training should be and (ii) have our end users of education and training (MHSUs) input into what curriculum should be developed.

Overall, the mixed methods approach is inspired by the drive for increased MHSU participation, which is now a key element of health policy (DoH 1999a) which is now extending into health education. The theory of participation can be used to build inclusive educational practices see Arnstein's (1968) model of citizen participation earlier (see p38). Wilcox (1994:4) suggests that we need to take a stance about the level of participation we want, stating *"understanding participation involves understanding power: the ability of the different interests to achieve what they want"*. I felt that incorporating the MHSU experience would not only give added authenticity to education, but also the authority of experience, as this would highlight areas for training not covered by the TNA.

Mertens (2003) writes of a 'transformative paradigm' in research, which is,

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My research work in physical healthcare and mental illness has shown that a transformation in practice is required in order to increase the health outcomes of this group. I feel that the mixed methods approach will contribute to this transformation as it addresses the education and skills needs of practitioners from the two key stakeholders.

Reasons for selecting an explanatory design

Creswell and Plano-Clark (2007) state that mixed methods research designs can be fixed - the use of quantitative and qualitative methods is predetermined and planned at the start of the research process and/or emergent – arising due

to issues that develop during the process of conducting the research. They also suggest that mixed methods research can have various formats, classifying four different types; triangulation design, embedded design, exploratory design and explanatory design (Creswell and Plano-Clark 2007).

1. The triangulation design is a one-phase design where qualitative and quantitative methods are used at the same time i.e. there is no sequencing. I did not think this was appropriate as I felt that two completely different stakeholder groups would have two different world-views that would benefit from separate investigation. The results of one would explain and give a deeper understanding of diabetes education and skills needs.
2. The embedded design is used in experimental or correlational research. While some questions in this project may be correlated e.g. comparing MHNs and MHSUs views of clinical skills needs, this constituted only a small part of the research. I was more interested in the diabetes care experiences of MHSUs and how these could be used to improve MHN educational experiences.
3. The exploratory design uses a qualitative method first and a quantitative method second. It is often used in development of a measurement instrument. However, instrument development was not a focus of this particular study, I was more concerned with the process of determining training needs and how MHSU input could enhance this. Furthermore, as I had already collected the quantitative data I took the decision to see the project as an emergent design and use the results of the quantitative TNA to develop the interview schedule for the qualitative part. This meant that the fourth design type, an explanatory design was selected.

4. The explanatory design was best suited to this study as the qualitative data will help explain the quantitative data. This provides a sense of confirmation of the data through the enhancement of validity and confidence in the findings and a completeness of the understanding of the concept(s) under investigation (Halcomb & Andrew, 2005). The dovetailing of the methods gives a better indication of what should be included in developing MHNs diabetes care education, both in terms of content but also how the content is derived and from whom. The process was a sequential explanatory design (Creswell and Plano Clark 2007) see figure 4 below.

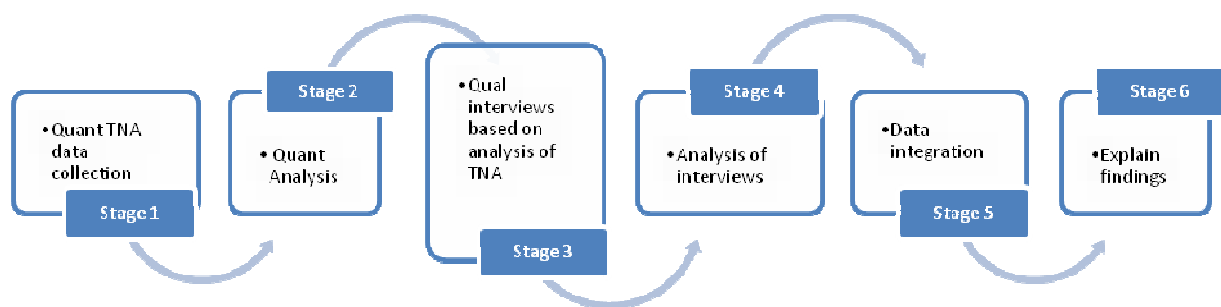


Figure 4: Study sequential explanatory design

Study Integrity

This section will discuss the steps taken and processes followed in increasing project rigour. Creswell and Plano Clark (2007) suggest that currently there are no accepted criteria for assessing the quality of mixed methods research. They go on to suggest that issues of rigour and validity in mixed methods research should be *“reported and discussed within the context of both quantitative and qualitative research methods”* (Creswell and Plano Clark 2007:146). O’Cathain (2010:535) suggests that,

“...quality assessment of the qualitative and quantitative components of a study is essential as each contributes to the study as a whole.”

Therefore, the steps taken to enhance rigour will be discussed in the context of the quantitative and qualitative methods used in the study. However, where practicable and for ease of reading, I will illustrate aspects of rigour across both methods in table form at various junctures.

Study Rigour

Tobin and Begley (2004) suggest that rigour is the means by which we show integrity and competence, it is about ethics and politics, regardless of the paradigm. Rigour is a contentious term in research because of its perceived quantitative leaning. However, all research needs to have some type of quality assurance process to differentiate it from assumption or minimise researcher subjectivity. In qualitative research, trustworthiness is used in place of rigour. This project adopted the concepts of rigour and trustworthiness outlined by Lincoln and Guba (1985) and are listed in table 5 below.

Table 5 Quality Assurance Measures derived from Lincoln and Guba (1985)

Quality Assurance Measures	
Quantitative Research	Qualitative Research
Validity	Credibility
Generalisability	Transferability
Reliability	Dependability
Objectivity	Confirmability

Creswell and Plano Clark (2010) have developed criteria to strengthen rigour and trustworthiness in mixed methods research. Table 6 below illustrates how these criteria were incorporated into this study.

Table 6 Managing Threats in Sequential Exploratory Designs

Methodological issue	Minimizing threat	Application to this study
Sample selection	Select the same people for an Explanatory Design and different people for an Exploratory Design	Diabetes education and skills needs explored through 2 samples; MHNs and MHSUs
Sample size	Use large sample for quantitative study and smaller sample for qualitative study	Large purposive sample of MHNs used in quantitative part. Smaller purposive MHSU sample used in qualitative part
Data Analysis	Address the same question in both phases	Qualitative interview schedule derived from quantitative TNA
Validity	Address potential issues for quantitative and qualitative validity	Quantitative and qualitative process for ensuring rigour illustrated in this chapter Experts were enlisted to review both the TNA survey and the MHSU interview schedule

Quantitative quality assurance

Content validity has been defined as *“the degree to which an instrument has an appropriate sample of items for the construct being measured”* (Polit & Beck 2004:423). Kumar (2010) suggests that face validity can be established by each question having a logical link to the objective. This link was obvious to me as the researcher but I had to ensure it was also clear for the participants. Therefore, in this mixed methods study, content validity was strengthened by using a panel of experts to review both the quantitative and qualitative data collection tools. The panel used in the TNA consisted of mental health lecturers and adult nursing lecturers who taught on the post-registration diabetes courses. The TNA was also presented to the local diabetes team in the general hospital asking them for comments regarding the structure but most importantly the clinical skills component of the TNA.

Generalisibility

This is also referred to as external validity, the extent to which findings can be generalised to the wider population. The quantitative part of the study was a descriptive design and was not aimed at testing an instrument therefore generalisibility was not an outcome. However, some questions in the TNA could be generalised e.g. self-assessed knowledge and skills work; however, this would need to be done within the context of a standalone quantitative study.

Reliability

Reliability is the extent to which a measure or instrument is consistent or stable over time (Bowling 2009). In this regard the TNA, as a descriptive survey, was not subjected to a test/retest in the same way a test on diabetes knowledge would have been. This is because concepts of reliability and stability do not apply strictly to the TNA as it is seeking to measure phenomena that are dynamic e.g. knowledge, skills and attitudes, and these change over time. Byrman (2012) suggests that respondent answers at test 1 may influence how they respond at the retest and this could result in greater consistency than may be the case. For example, if following the first survey MHNs went away and read an article about diabetes this would influence their perceptions of their knowledge or skills. This might then make it difficult to determine what the real training needs are.

Polit and Beck (2006) suggest that while instruments can have a good stability, if they are measuring variables that change over time they may not have good reliability. Therefore a test/retest is not appropriate for the TNA as such as it is not a formal test of propositional knowledge but a description of MHNs self-reported knowledge and skill levels and attitudes. However, it should be remembered that repeating the TNA following an educational intervention would have the advantage

of being able to determine if the education and skills training provided was successful as one could suppose better scores for knowledge, attitudes and skills.

Qualitative integrity

Trustworthiness

The trustworthiness of the qualitative part of the mixed methods approach consisted of Lincoln and Guba's (1985) criteria of credibility, dependability, confirmability, and transferability.

Credibility

Credibility is similar to internal validity. It is used to determine if the interpretation of the respondents views by the researcher's analysis 'fits' (Schwandt 2001). Credibility relates to the 'truth' of my findings, therefore using direct quotes from participants to illustrate or develop themes can enhance credibility. However, Lincoln and Guba (1985) state that 'member checks' are the strongest measure of credibility. This is where the researcher returns transcripts or final analysis to participants to see if they concur with findings. Credibility was enhanced by using member checking at two different stages; (i) interview transcripts were emailed to participants and (ii) my final analysis was emailed to participants.

Another way of ensuring the credibility of the data is how useful the research findings are for the development of inclusive curriculum. There is an increasing policy drive to involve MHSUs more in mental health care delivery and education and training of the mental health workforce. This research is based on the ethos of service user involvement and therefore retains some element of credibility by matching stated policy aims e.g. principle 4 of the NHS Constitution for England

(DoH 2012) which addresses patient's rights to be involved in decision making.. From a pedagogical viewpoint, I believe learning can be enhanced by incorporating personal lived experiences of MHSUs with diabetes. This will ensure that the learning experience is not only theory driven but is balanced by MHSU experiences.

Validity

Validity can be described as the degree to which a data collection instrument measures what it means to measure (Cutter and Jordan 2012). Having data collection tools reviewed by an expert panel can contribute to increased content and face validity (Terry and Cutter 2013). Therefore to enhance face validity in this study, expert review of the questionnaire and interview schedule was undertaken by nurse lecturers from mental health and general adult nursing departments within the university; including lecturers from the diabetes course. Two diabetes nurse specialists also reviewed the interview schedule. They examined it for accuracy, language and content. Minor revisions were made when one diabetes specialist recommended change was changing the category 'glucose' to 'sugar,' as patients are more familiar with non-jargon terms such as blood sugar levels.

The interview schedule was not piloted, and this may weaken its construct validity (Parahoo 2006). However, construct validity is a concept that is more applied to questionnaires within a survey than to an interview schedule. Experiences are unique and therefore I used broad interview questions to allow participants to talk about these. Furthermore I felt uncomfortable with the idea of pilot-testing someone's experiences; I felt that this would have been a more quantitative exercise than a qualitative one. Finally, not knowing the sample size I did not want to reduce it by omitting data if the interview schedule change significantly following the pilot.

However, I did want the interview schedule to have content validity and therefore had it reviewed by two diabetes nurse specialists and minor revisions made. Some of the comments of the specialists were included as probes in the interview schedule and others I felt would come up naturally in the course of the interview when clarifying questions e.g. the scene setting questions - Background on diabetes; How long have you had diabetes, which type of diabetes do you have, who told you that you had diabetes/where was your diabetes diagnosed type of diabetes.

Furthermore, as the interview schedule was going to be sent to participants to read, it went through a series of re-edits using the readability function of MS word. The interview schedule has a Flesch Reading Ease (FRE) score of 78.7 and a Flesch Kincaid Grade Level (FKGL) score of 4.6 (Kincaid et al (1975). These scores map the reading difficulty of a piece of text. The higher the score the more people will be able to read the text; 78.7 represents an easy to read text. The FKGL score corresponds with a school grade level. For example, a score of 4.7 would suggest that the questionnaire would be expected to be understood by an average student in 5th Grade (USA), which is 10 – 11 years old. While the concept of the FRE and the FKGL are American, the tests demonstrate the general readability and understandability of the interview schedule.

Dependability

Dependability relates to the concept of reliability. Here researchers illustrate their research activity by providing an audit trail of the documentation of data, methods and decisions about the research that can be laid open to external scrutiny (Finlay 2002). Dependability was enhanced by the use of a diary to record the details of the interviews and also taking field notes during the interview of significant incidents e.g. expressions of laughter and the context in which this occurred. Following each interview, I made initial notes of my impressions of how they went and the key aspects that 'stuck out' for me.

Furthermore, the project activity outlines a systematic and appropriate method of collecting and analysing data. Both samples did share some similarities in their views of diabetes care needs and this will be explored further in the findings section.

Confirmability

Cutter and Jordan (2012) suggest that qualitative data may be vulnerable to subjective interpretation. In order to minimize this, the qualitative data analysis process was subject to a confirmability audit. Confirmability relates to the degree of neutrality of the research process, or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Lincoln and Guba 1985). Confirmability was enhanced by having an independent person, unconnected to the study, review the transcripts, the significant statements, the theme development and final analysis to check for consistency. They confirmed that the process was clearly illustrated confirmed that the qualitative study themes were derived from my interpretation of participants experiences recorded in the transcripts (see appendix 3 for evidence of confirmability check). Furthermore, the member checks, (see p69), is further evidence of steps taken to enhance confirmability.

Transferability

Transferability is similar to generalisability (external validity) in quantitative methods. I need to ask 'can my findings be transferred to other MHSUs with diabetes'? In qualitative research transferability can be enhanced by providing a detailed account of how the research was conducted; the sample, methods of data collection and analysis and findings. This will enable other researchers to determine transferability and credibility of the findings and whether the same process can be applied to their situation.

However, in using a mixed methods approach I need to be mindful of a potential clash between “*naturalistic generalisation*” (which comes from experience) and “*scientific generalisation*” (which comes from conceptual knowledge) (Stake and Trumbull 1982:6). Stake and Trumbull (1982) posit that the major way that change is produced, via scientific generalisation, has been rejected; suggesting improved practice can best come about by altering practitioners convictions. Naturalistic generalisation emphasizes practical and functional application of research findings (Stake and Trumbull 1982). I believe that the findings related to MHSUs experiences, taken in the context of the theory of stigma, can enhance the prospect of transfer.

Summary: Maximising Study Rigor

Table 7 summarises steps taken to maximise this project's rigour

Table 7 – Quality assurance applied to this study (adapted from Lincoln and Guba 1985)

Quality Assurance Measures		
Quantitative Research	Qualitative Research	Application to this project
Internal validity	Credibility	Two member checks carried out, integration of data from both methods
Generalisability	Transferability	Detailed description of study activity, sampling, data analysis processes. Dissemination of work in peer reviewed journals and conference presentations
Reliability	Dependability	An audit trail and field notes were kept in the qualitative part of the study
Objectivity	Confirmability	Independent review of qualitative data analysis

Creswell and Plano Clark (2010) also suggest that validity is enhanced when researchers examine their own study limitations. This will take place in chapter 6.

Ethical aspects of this Mixed Methods Research project

This section will examine the ethical aspect of the project and illustrate how the project demonstrates ethical understanding. As an experienced researcher in health and social care, I am confident that this study has complied with strict ethical frameworks. This project complies with the principles for research in the NHS as stipulated in the Research Governance Framework for Health and Social Care (Department of Health (DoH) 2005b). Specific aspects of this will be explored further in this chapter.

Burns and Grove (2004) suggest that the conduct of research goes beyond research expertise and diligence, requiring also honesty and integrity. Ethical practice in research is principally concerned with protecting study participants; ensuring that they do not come to any harm and that their rights are protected. Honesty and integrity therefore epitomize this. Orb et al (2000:93) puts it simply, saying, *“ethics pertains to doing good and avoiding harm”*.

Denscombe (2010) states that social researchers are expected to approach their work in an ethical manner. Safeguards that protect populations under investigation need to be an integral part of the whole research project, from data collection to dissemination. These should be explicit so that potential participants can decide whether or not they want to participate. As this is a mixed methods approach, utilising two different samples, the principles of research ethics applied equally to the MHNs and MHSUs; ensuring both samples had their rights protected during the research.

As a nurse I am aware of the importance of concepts such as autonomy, confidentiality and consent in clinical practice and know that these must transfer into my research. The six principles of research ethics outlined by the Royal College of Nursing (RCN) (2009) were essential in underpinning this project;

- Informed consent – All participants gave informed consent prior to participating in both arms of the research project. Each participant also received a detailed Participant Information Leaflet (PIL) outlining their role in the project (see appendices 4 and 5). Each participant had my contact details if they required further information and could use this at any stage of the research.
- Confidentiality – All data was confidential, no names were attached to questionnaires and completed questionnaires and consent forms bearing the signature of the participant were kept apart separately. Interviews were coded using the gender and length of time of the recording e.g. M3204 (male 32 minutes 04 seconds).
- Complies with the laws of the land - Data protection legislation governed the collection, retention and dissemination of data. Recorded data was saved and backed up as a password protected mp3 file on a computer with a firewall, antivirus software and alphanumeric password protection. The hard disc backup also contained these security features and the passwords were only known to me. Recorded data was transcribed by a reputable professional service with long experience of providing transcription services and a reputation for maintaining confidentiality. Participants were informed that an independent company would do this.
- Ensures that participation is voluntary and the right to withdraw – the consent form and PIL stated that participation was voluntary and that participants had the right to withdraw from the study without penalty. Rolling consent was used during the semi-structured interviews – at various stages I ask participants if they wanted to continue.
- Potential benefits and potential harms of research – while this research did not involve human testing or any type of intervention and the subject under investigation was benign in nature, risk of harm was considered negligible.

This was supported by ethical approval. However, the benefits of the research can be tangible for both groups in respect to developing more responsive training and education for MHNs and an increased level of MHSU participation in curriculum development.

- Avoids deception and operates with scientific integrity – research proposals were developed and submitted for review to ethics committees. Appendix 6 is the ethics permission from the NHS Trust and appendix 7 is the ethics permission from Middlesex University. The research and audit department of the NHS site also gave permission for the study to proceed (see appendix 8). I feel this gives the project scientific integrity as the data collection methods employed were deemed appropriate.

Additional measures

Following permission to conduct the research from the Local Research Ethics Committee (LREC), I had to register the project with the Research and Audit Department of the NHS Trust to ensure good research governance in respect to ethics and protection of research subjects. To meet this criterion I had to apply for an honorary contract as a Trust employee to ensure that I had a degree of liability insurance, even though I was not researching service users (see appendices 6-9).

Ethical aspects of Telephone Interviews

Smith and Glass (1987) state that telephone interviews are a common and important method in data collection. However, they appear to have something of a 'lowly' status as a data collection method, even in qualitative research. This may have something to do with a lack of visual contact in other interview methods. However, telephone interviews are routinely used in survey research in the general population and they are also used in healthcare research with patients from many different health specialities.

The choice of telephone interviews was pragmatic. I am based in Dublin and logistically it was difficult and expensive to arrange interviews. However, this pragmatism did require balance and consideration of the ethical implications of this method of data collection. My sample were individuals with a mental health problem and diabetes and I needed to consider the appropriateness of using this type of method with this particular group. This led me to review the literature on telephone interviews as a data collection method in mental health research.

Telephone surveys, as a means of data collection, have been used, in mental health research, for a range of purposes. For example, Patten et al (2006) conducted a prevalence study in Canada using telephone interviews. The interview included validated measures for evaluating prevalence of mental disorders and related variables. The telephone survey was primarily a means of collecting supplementary surveillance information.

This paper does not approach the ethics of cold calling people who might be mentally or emotionally vulnerable emphasising, maybe coldly, the more functional aspects of methodology including mentioning a substantial number of refusals to participate occurred at the initial household contact. Maybe this had to do with being cold called by someone trying to measure the prevalence of mental illness? Cold calling does not give potential respondents time to consider the implications of participating in the research.

This current project did not opt for a cold calling approach; rather it took a partnership approach with a service user advocacy group. This group acted as a gatekeeper (a proxy) for me as the researcher. This enabled potential participants to gain the participant information and details on the study (see appendix5). Once participants contacted me I explained the purpose of the interview and arranged a date at which I could contact them to conduct the interview. This also acted as a 'cooling off period' so that participants could still withdraw.

Each participant was emailed the interview schedule prior to the actual interview. This allowed us to focus and structure the interview in order to minimize extraneous conversation and keep the interview flowing. I think that sending the interview schedule to the participants allowed them to focus their thoughts and contributed to some rich data being generated.

Hansson et al (2005) used a telephone interview method to test a parent telephone interview focused on autism with parents of 84 children in contact with a child neuropsychiatric clinic and 27 control children. They found that their interview tool had a good measure of reliability and validity. However, again there was no consideration of ethics mentioned in the study. How would parents feel about discussing their autistic children over the telephone for the purposes of developing an interview schedule?

Emailing the interview schedule is quite contrary to the approach of Hansson et al (2005). I was aware that telephone interviews take away the visual interface and wanted to compensate for this by letting participants follow the questions visually as well as audibly. This may have also abated any potential fears of personal or difficult questions enabling participants to decide if they wanted to participate. While a criticism may be that this allowed participants to reflect and rehearse I felt it was necessary for them to recollect experiences prior to the interview. Furthermore, a postal survey may be completed over a period of time were respondents might want to deliberate on questions before completing it.

The literature cited above shows that telephone interviews, as a method of data collection, are used in mental health. However, the approaches used in the two examples cited are different than those used here. My sample was more specific and purposive than in Patten et al (2006) and I was not testing or validating an instrument (Hansson et al 2005).

However, discussion of methods may not be the essential issue here. The research cited illustrates that telephone interviews are used in mental health research, just as in research with other groups; vulnerable or not. Selecting this method of data collection requires a defence beyond mere pragmatism. I suggest that people with mental health problems are entitled to be canvassed in the same way as the general population. They may already be participating in market research which does not have the same ethical rigour of this study. To treat MHSUs any differently may presuppose some type of 'weakness' that may be interpreted as stigmatising, no matter how benevolent it may appear. The participants were offered the opportunity for support post interview which none took up. They also consented for me to involve them in member-checking the interview transcripts and also my final interpretation of these. I feel this added to the partnership aspect of this part of the study.

Of course another mitigating factor in opting for this data collection method was the nature of the area under investigation. I feel that asking about experiences of diabetes care is less invasive in triggering an adverse (emotional) response to the interview. For example, asking about how disturbed a person is following the experience of auditory hallucinations or how emotionally distressed they are following self-harm would not be suited to this remote data collection method. In the latter examples, participants may require immediate support which may not be effectively rendered remotely. This is why the interviews were punctuated with a 'rolling' consent – participants were asked if they were OK to continue at various stages of the interview.

Participants had the right to withdraw from the interview at any stage and telephone interviews carry an immediate failsafe; participants can hang up and terminate the interview immediately, whereas they may feel themselves obliged to sit through a face to face interview.

Critical commentary on my role in this research project

My own worldview

This section will discuss my role in the study. It will explore my own worldview of research go on to examine this within the concept of insider-outsider researcher. Examining my worldview entailed a critical reflection on my views of Polit and Beck's (2004) paradigm assumptions; what do I think is the nature of reality (ontology), what should my relationship be with 'people who know' (epistemology) and how should I go about finding this out (methodology).

In the course of my clinical and academic career, I have used both qualitative and quantitative research methods. I would not describe myself as an expert researcher as research is a small part of my work in comparison to curriculum development, teaching, and administration. I would describe myself as a competent researcher and would evidence this with my publication and conference presentation record. Most of my research has been of a quantitative nature and this stems from my previous work in NHS management. This was a results driven environment, where greater value was placed on empirical evidence in driving change and service provision; statistics had a higher utility value. I feel my preference is reflective of the positivist culture linked to evidence-based practice that existed at that time.

Subsequently, my DProf work has had a positivist slant. Yet, I have also felt a growing sense that my work, while successful in regard of publications, was being constrained in some way. Vogt (2008) suggests that the 'quant-qual' distinction is a distraction that constrains opportunities for innovation. This suggestion made me critically reflect on the lack of research into the experiences of MHSUs with physical conditions, such as diabetes; and how these experiences could contribute to the emerging physical health agenda in mental health. Furthermore, the literature review illustrated the drive towards greater MHSU participation in many spheres of service provision, but that this trend was not matched in mental

health education regarding input into curriculum planning, development and evaluation (Higgins 2011).

Real life research is complex and therefore may not be amenable to a dichotomous split of quantitative and qualitative investigation. Tashakkori and Teddlie (2003:15-16) suggest that mixed methods research is superior to a single method as it can provide better inferences in studying complex social phenomena such as institutions or multiple realities while providing an opportunity to present a greater diversity of divergent viewpoints. MHSUs have unique experiences of physical healthcare that are largely unexplored. For example, the literature review outlines the prevalence of conditions like diabetes. However, prevalence tells us little about the individual, or group, experiences of living and coping with complex conditions such as diabetes and schizophrenia. MHSUs experiences can be important determinants in gauging the effectiveness and appropriateness of diabetes care and services.

Brannen (2009) suggests mixed methods research is a move away from theoretically driven research to research which serves strategic goals and that meets policy and practitioner needs. I would widen this to include MHSUs in a tripartite relationship. However, the pragmatic philosophy of using what will work, while allowing the researcher to investigate issues that do not easily fall into one paradigm or the other, is not without its own philosophical problems and these will be discussed further in the work.

I also felt that mixed methods research linked well with the philosophy of work-based learning where the dynamism of project activity linked to results meant this project was constantly growing. Dovona-Ope (2008) suggests that, in mixed methods research, the focus is on research outcomes rather than the methods of data collection - from a pragmatic perspective collecting different voices to promote social change links well with the 'what works' ideas of pragmatism and

this weds well with work-based learning in respect to this current study. I feel mixed methods research shares the philosophy of work-based learning in being both practical and oriented towards useable products and outcomes. Costley et al (2010:109) suggest work based learning offers opportunities for

“...collaborative research, involving a common or shared values orientation and a deeper involvement and engagement in the process and outcomes of research”.

I was the principal investigator in the study, which was also supervised by an external consultant and an internal supervisor. The research itself did not take place in my organisation. The quantitative part took place in a mental health trust, which is a key stakeholder organisation that commissions post-registration mental health nursing courses from Middlesex University. The qualitative part took place within a MHSU organisation; which is located in the borough where the mental health trust provides mental health services.

In undertaking this project, I need to recognise how my beliefs and experiences can influence those who are participating in the investigation and how I conduct the study e.g., how participants perceive me. This has been explored, in part, in this chapter, which has examined my rationale for selecting a mixed method approach and the recognition of my preference for quantitative methods. However, I need to reflect further and more critically on how I can maximise my neutrality and objectivity. Hopkins (2007) suggests that it is useful for researchers to think critically about the position they adopt in relation to those being researched, and how this relates to issues of ethical research practice. This ‘positionality’ is usually represented by the terms ‘insider-outsider’ researcher.

Insider-outsider researcher

Corbin-Dwyer and Buckle (2009:55) suggest that the

“...personhood of the researcher, including her or his membership status in relation to those participating in the research, is an essential and ever-present aspect of the investigation”.

To this end, the insider/outsider concept of research needs to be reflected upon and acknowledged by researchers in order to minimise any potential bias in the research process.

Rabe (2003) suggests that it is the concept of power that defines the insider/outsider researcher, as the researcher may be the one with power while the participant the powerless. Fox et al (2007) suggest that practitioner researchers need to be aware of where and when they are exercising power and be self-aware of their own power in order to use it effectively and without harming others. I feel that the formal process of ethics and research department approval ensured that both arms of the mixed methods study adhered to a strict moral and ethical framework. This served to reduce power imbalances by ensuring role transparency between researcher and participant. I also feel that when participants have the right to withdraw consent this encourages researchers to practice more ethically as they may subsequently lose data if participants withdraw.

In respect to research method, one might assume that outsider research shares similarities with quantitative epistemology e.g. outsiders are neutral independent from those being researched and this neutrality is akin to objectivity, which is a key aspect of such investigation. Insider research shares similarities to qualitative epistemology as insiders may be close to the research participants or the issue under investigation. The insider researcher may interact with research participants and therefore has unique insights that may enhance the investigation as their findings are derived from these interactions. What is certain is that whichever role is adopted, or conferred on the investigator, impartiality is important to ensure that the investigator does not knowingly influence or bias the research with their decision-making.

The dichotomy encountered between qualitative and quantitative research methods appears to bear a likeness to the insider-outsider polemic. My role in relation to insider-outsider researcher was complex. At face value, I could be classed as an

outsider as I am not an employee of the mental health service where the quantitative part of the study took place, nor am I a mental health service user, nor do I have diabetes. However, on critical reflection my role was not so clear-cut as I am a MHN by background and I now work in an academic role teaching mental health nursing. Therefore, while an outsider to the NHS organisation I am an insider to the MHN profession.

When explaining my positionality regarding MHNs, I feel I come under the “peripheral member researcher” role identified by Adler and Adler (1987);

- (a) Peripheral member researchers who do not participate in the core activities of group members;
- (b) Active member researchers who become involved with the central activities of the group without fully committing themselves to the members’ values and goals; and
- (c) Complete member researchers who are already members of the group or who become fully affiliated during the course of the research.

Yet, I am not a MHSU, nor a ‘diabetic’ so I consider myself an outsider to that group. However, Corbin-Dwyer and Buckle (2009:60) state that,

“...holding membership in a group does not denote complete sameness within that group. Likewise, not being a member of a group does not denote complete difference.”

While not a MHSU I have extensive experience working with this vulnerable group in a range of areas; clinically, organisationally, managerially and now academically. I think that this experience has enabled me to see the importance of gaining their views as legitimate stakeholders in order to increase the quality of care, service delivery or MHN training and education. As a reflection of the mixed methods research paradigm, which views research methods on a continuum, I found that my

insider/outsider research role resembled this as I may have moved between the insider/outsider research roles.

Corbin-Dwyer and Buckle (2009:60) suggest that there is a “*space between*” as presenting the concepts of insider/outside in a dualistic manner is overly simplistic, quoting Fay (1996:241) who noted that “*there is no self-understanding without other-understanding.*” I feel that the conceptualisation of the mixed methods research method as being on a continuum can also apply to ‘insider-outsider’ researcher roles, where researchers may move between roles that may not be necessarily static or in my own case not easily defined as insider or outsider.

Advantages and Disadvantages of outsider research

There are recognised advantages and disadvantages with outsider research. Bridges (2001:371) suggests that the main disadvantages of outsider research are that outsiders cannot properly understand and represent participant experiences, are exploitative, disrespectful and that having outsiders articulate your views is inherently disempowering. He further states that outsider researchers may disempower insider researchers by taking away initiative for investigating practice. Table eight below outlines some advantages and disadvantages of outsider research for this project.

In regard to work based learning and mental health nursing, the main disadvantage of being an outsider in this project is being an external change agent for practice. While this project has changed my worldview of developing curriculum by including key stakeholders, insider research may have a better opportunity of promoting and sustaining change in practice as this change is promoted and sustained from within the organisation. This is an echo of Bridges’ (2001) point above about disempowering insider researchers; insiders may be able to engender higher levels of ownership of outcomes whereas outsiders may not be able to due to organisational politics.

The outsider researcher role in the qualitative part not only referred to the collection of data but also to the interpretation of it. I reflected a lot on how I, as an outsider, could accurately give meaning to participants experiences. I feel my own ability to empathise, developed over years of clinical worked certainly helped. I also feel my skills as a quantitative researcher enabled me to retain some objectivity with the data interpretation. I think the most convincing factor was the member check where participants that responded agreed with my analysis, showing that I did, at some level, understand their experiences. Bridges (2001) suggests that this is an advantage of outsider research as outsider researchers can give voice to the disempowered whose views might otherwise remain unexpressed.

I feel that, on balance, not sharing group membership did not hinder access to the samples or data collection to any great extent in both parts of the research. The sample size for the quantitative part was 66% (147 of 220 MHNs) and in the qualitative part MHSUs were very willing to have their experiences known and many expressed their thanks that the research was taking place. Gibbs (2007:4) suggests that the researched give gifts such as *“access to their thoughts, ideas and emotions”*. I wholeheartedly agree with this as MHSU participants gifted me their stories and experiences and I now need to *“organise a positive occurrence of change or the potential for such change”* (Gibbs Op. Cit.). The products of this project, publications and conference presentations, are ways of promoting change and critical discussion in my community of peers of the dangers of not involving service users or of not seeing their experiences as expertise.

Table 8 Outsider researcher: Advantages and disadvantages in this project

Advantages	Disadvantages
I was a neutral observer not employed by the organisation for the TNA	Being invited to do the initial research by managers may have given the impression of surveillance than research
I would not have any prior assumptions about practice that may bias the direction of the quantitative research	I lacked understanding of organisational issues that may have made the research process longer
Enable people to highlight issues that may not have been an organisational priority	May have led to lower response rates as MHNs did not want to disclose lack of knowledge or skills
Emergent research area which is important in clinical practice	Lacked embeddedness to access the realities of everyday practice
Could tell the story of MHSUs in an objective way	As a MHN participants may not have disclosed everything

Reflections on Leadership

In this project I do not think I demonstrated one style of leadership but feel that overall, and in keeping with the mixed methods research method, I found my leadership style to be pragmatic. For example, research is often referred to in terms of 'research project'. Therefore, there are elements of project management in the conduct of all research. By virtue of completing this project, one can assume that project management skills in regard to making sure tasks are completed at specified points, delivered on schedule and within budget have been displayed. In a results driven management context, the success of these project management skills may be determined by the final result of the project. However, I feel that the various products of the research (pp165-6) are also indicators of the quality of the project.

Leadership Style

While I was not cognisant of stakeholders as followers, I felt that I did need to display leadership qualities that would enable stakeholders to become engaged in the research. Tannenbaum and Schmidt (1958) believe that leadership behaviour lies on a continuum of behaviour from management authority to subordinate freedom. Therefore, using the continuum example I feel that I moved along a continuum that had management at one end and leadership at the other. My leadership style was pragmatic and did not favour one form of leadership over another but utilised different leadership traits from different theories to enable stakeholders to participate. At the professional level this was a formal TNA, at the lay level this consisted of service users telling their stories.

For example, distant leadership is a term that denotes *“managers at the top level”* (Alimo-Metcalfe and Alban-Metcalfe 2000). Therefore, looking at academia as a career path in nursing, I displayed a distant leadership role in developing my community of practice. However, being a distant leader for me accentuated my outsider status, as I was unconnected to both stakeholder groups. Therefore to minimise the impact of this distance I strove to make the research collaborative and tried to get the views of stakeholders who will have vested interests in education; MHNs for professional and clinical reasons and MHSUs for safety and quality of care. The collaborative approach also mirrors Arnstein’s Model of Citizen Participation (1969) for engaging MHSUs in education and training. I feel that collaboration was an effective mitigator against my outsider status.

Where I displayed leadership

Iles and Sutherland (2001:17) suggest that whole systems thinking raises

“...awareness of the multi-factorial issues involved in healthcare and that complex health and social problems lie beyond the ability of any one practitioner, agency or team to fix”.

Seeing MHSUs as an active, rather than passive, part of the system, was a rationale for striving for a collaborative research project. On reflection, I would consider that I demonstrated aspects of leadership most when trying to mitigate against the effects of being an outsider researcher. Storey (2004:7) suggests that leaders are

“...transformative, seek to challenge and change systems, create new visions and meanings, empower, inspire and have a long term focus on the strategic big picture”.

Being an outsider during this project, I could not display ‘great man’ leadership traits as this may have alienated me from stakeholders. However, Mintzberg et al (2002:71) suggest that real leadership is often more *“...quiet than heroic. It is connected, involved and engaged. It is about teamwork and taking the long-term perspective”*. Leadership has a meta-narrative in my academic practice. I need to display leadership qualities in my teaching, my own learning and research activity, my partnership working, my community of peers and my profession of nursing. Glatter (2004:215) suggests that leadership in education is *“embedded in relationships, context and performance”*. I think this project has all three of these elements.

I think that I considered myself more of an outsider in the qualitative part of the study, as I had no common ground with the MHSU stakeholders. I feel the insider-outsider role was a little blurred in the quantitative part; being a mental health professional meant membership of an extended professional group rather than a narrow occupational group. Therefore, in recognising myself as an outsider researcher, irrespective of the role assigned to me by each research group, meant that I had to proceed with sensitivity and tact. I feel that my communication skills, developed over years in clinical and academic practice, and my enthusiasm for the project area, helped me to develop rapport with the key stakeholders and show genuineness about the research topic.

In Storey's definition above, vision and strategy are key elements of leaders. However, I feel that initiative is another leadership skill. Many MHSUs participants expressed their views that this type of research was long overdue. Coupled with the lack of literature on this subject I feel that my initiative in pursuing this research is a leadership trait in the mould derived from vision and long-term focus.

My leadership qualities

The status of the outsider researcher may be indicative of a power imbalance between the researcher and the researched. The power imbalance may have been greater within the qualitative part – academic/researcher and service user. Again quiet leadership was a way of establishing partnerships and I feel that my leadership in this project is derived from partnership rather than individual activity e.g. MHSU stakeholders had a story to tell and I happened to be the person who they enabled to tell it. The research topic may have been my idea but without their participation, it would have remained just that, an idea. Recognising power imbalances is a key quality for ethical research. It is a form of reflexivity, which enabled me to critically examine how I influenced the research.

Regarding values in leadership, Gardner (1990:77) suggests that leadership is about

“...caring for others, honour and integrity, tolerance and mutual respect, and about human fulfilment within a framework of values.”

These sentiments seem to be in stark contrast to the types of values and ethic free leadership practices that have caused various economic, social and political scandals in recent times. Nevertheless, Viinamäki (2009:7) suggests that values are

“...a means of influencing behaviours without the need to resort to formal structures, systems, strategies, or control mechanisms. Values are seen as the underlying attitudes and beliefs that help determine individual behaviour...”

Peck (2010:235) suggests that power is a concept that is largely ignored in leadership and this runs the risk of *“rendering analyses of leadership rather fanciful, not to say naive”*. I was aware that my status as an academic and professional could lead to a power imbalance with both stakeholder groups. I needed to ensure that this did not compromise the ethical standards required to protect these stakeholders. However, I feel that there is evidence herein of ethical leadership in the conduct of this project.

Transparency is another ethical leadership value that I demonstrated in this project. Giving as much information about the study as possible showed that I did not have a hidden agenda. All participants were given information leaflets and I made myself available to answer any questions participants may have had. Transparency underpinned the strong moral and ethical value base in the research and demonstrated how important I felt safety was for participants. The process of gaining ethical and managerial approval for the projects is a way of demonstrating that a proper and thorough process was followed. This is evidence of ethical probity that can reassure participants that the research fits with good practice and will reduce any risk of harm to them.

Confidentiality, anonymity, requiring informed consent, and having the right to withdraw from the research are powerful incentives for outsider researchers to ensure that research participants are protected. Enhanced transparency, in the form of member checks, ensured that I was accurately representing participant experiences. I also believe that apart from being a means of increasing methodological rigour, member checking shows a genuine concern for others views and this is an important leadership trait (Alimo-Metcalfe & Alban-Metcalfe 2000). I think these factors can effectively level any power imbalances. These concepts also have the ability to engender collaboration in the research process; as leaders need followers, researchers need participants and participants need to be protected and valued in the same way as followers.

The National College for School Leadership (2001) suggest that leadership, which is encouraged at all levels, has a significant role to play in the development of emergent leaders; they term this *“distributed leadership”*. However, the distribution may be hierarchical within the organisation e.g. leadership at different levels. Gronn (2002) advocates the importance of distributed leadership, which emphasises interdependence, co-ordination and reciprocity. I think as an outsider-researcher, I maintained a federal approach to leadership rather than a hierarchical one. This allowed me to be, what Yammarino (1994:37) terms, an *“indirect leader”*. Yammarino (1994) suggests that leadership can occur at a distance but that this is under-researched because much of the leadership literature reflects direct leadership – that between a focal leader and their immediate followers.

Chapter Summary

The aim of this study is to identify MHNs diabetes care skills and training needs. A pragmatic approach to investigation has been adopted for this study, as it is innovative as allows for examination of training needs from the point of view of the key protagonists; MHNs – who provide care and MHSUs – on whom care is practiced. Greene (2007:83) suggests that pragmatism has four key characteristics that I feel underpin this approach to exploring MHNs diabetes care skills needs; pragmatism,

1. *“Recognizes the existence and importance of the natural or physical world as well as the emergent social and psychological world*
2. *Views knowledge as being both constructed and based on the reality of the world we experience and live in*
3. *Views current truth, meaning, and knowledge as changeable or as provisional truths*
4. *Prefers action to philosophizing (pragmatism is, in a sense, an anti-philosophy)”*.

The literature review illustrated how the service user/patient viewpoint is traditionally neglected when identifying professional's training needs. This study is a departure from traditional organisational TNA as it actively seeks out service user's views of education and training needs. These might correspond to those of the MHNs regarding diabetes care. However, there is the possibility that in examining MHSUs care experiences we learn something new which could then be used to enhance the quality of care in this area.

Risjord et al (2001:40) suggest that nursing is a profession that has a...

"...research domain encompassing the full range of human responses to health and illness, including biological and physiological manifestations as well as the emotional, motivational, psychological and social facets of illness."

In view of this and the added complexity of 'lay' MHSU views of diabetes education, a mixed method research approach was chosen as I felt that a mono-method would not sufficiently address the issue of exploring MHN diabetes education and skills needs.

My experience of this research project has led me to believe that outsider research may be what complex organisations need in order to challenge the status quo, inject a fresh perspective, promote change or give voice to things already known by the workforce. However, it is only natural for outsiders to be treated with a degree of suspicion.

This chapter has outlined the project methodology and has given a rationale for selecting a sequential explanatory mixed methods approach. It has critically examined the utility of a mixed methods approach in exploring MHNs diabetes care skills and education needs. The chapter has also critically explored the advantages and disadvantages of this research method and has also given a critical account of my role in the research. Ethical issues pertaining to the research have also been explored and summarised.

Chapter 4: Project Activity

Introduction

Nash (2005) suggests that the impact of diabetes care on MHNs workload constitutes a great learning need for this practitioner group. Diabetes education and skills needs constitute emerging areas of MHN education and clinical practice which require a systematic analysis of issues such as workload, skills and knowledge. However, in line with the philosophy of MHSU involvement it was important to explore MHSUs experiences of diabetes care to determine if such experiences could enhance identification of training needs by contributing added depth or extra context to diabetes education and skills.

This chapter will describe the main project activity. It will explore the areas of development of data collection tools, sampling, study activity and methods of data analysis. Data analysis involved descriptive data analysis using SPSS v18 and a thematic content analysis of interview transcripts in the development of specific themes linked to MHSUs experiences. Both sets of data will be integrated and presented in the finding section before a detailed discussion in the discussion chapter.

The chapter will illustrate how the quantitative TNA contributed to the development of the qualitative interview schedule. The mixed methods approach helped to develop a deeper understanding of the area of diabetes care as it captured dual perspectives of key issues in the provision of diabetes care and perceived skills and education needs.

The previous chapter gave a detailed exploration and rationale for using a mixed methods approach. In using this approach, I selected two methods of data collection

1. Quantitative descriptive survey: a Training Needs Analysis (TNA) of MHNs diabetes care activity, their self-assessed knowledge and skills and stated education and training needs (see appendix 10)
2. A qualitative semi-structured interview of MHSUs to obtain their experiences of diabetes care (see appendix 11)

Quantitative Data Collection methods

A questionnaire survey is the most widely used and practical method of gaining a comprehensive overview of clinical practice. Therefore, I developed a TNA tool to collect data.

Training Needs Analysis

Training Needs Analysis (TNA) is a formal process where training or learning objectives are established, knowledge is mapped, gaps are identified and appropriate action is taken (Pedder 1998). TNA are predominantly human resource management projects designed to establish learning needs that will help to achieve organisational goals.

The process of developing the Training Needs Analysis tool

Defining need is a complex endeavour in healthcare. However, need does not only relate to population health needs; it also relates to the education and skills needs of practitioners that will facilitate the population's health needs. A TNA is a methodical collection of information regarding the training needs of target health professionals (Hicks and Hennessy 1996). My first step was to conceptualise 'need' and for this, I used a familiar taxonomy developed by Bradshaw (1972). This helped to illustrate four main types of training needs;

- Normative Need – based on criteria as set by experts or officials e.g. the types of training Mental Health Nurses need to implement health policy
- Felt Need – what Mental Health Nurses feel their training needs are
- Expressed Need – represents Mental Health Nurses training needs expressed during IPR or management supervision
- Comparative Need – based on the needs when two groups are compared e.g. Mental Health Nurses would have different diabetes education and training needs than diabetes nurse specialists. This is important when determining how to 'pitch' education and training to those who have dual nursing registration.

However, this conceptualisation of need is broad and requires a specific educational context. Therefore, I also explored domains of learning relevant to clinical practice. Bloom (1956) suggests there are three domains to learning;

1. the cognitive domain links to mental skills,
2. the affective domain to emotions that can affect attitudes and
3. the psychomotor domain that influences manual skills.

These domains contribute to behaviours and were used in the development of the TNA tool. The domains are not separate as they can overlap e.g. for MHNs the cognitive and psychomotor domains will be required for clinical diabetes practice. However, the attitudinal part of the TNA was small when compared to the other two domains. I felt that exploring MHSUs experiences would facilitate evaluation of the attitudinal domain, as attitudes are very powerful influences in mental healthcare. The mixed methods approach would help to identify areas where MHSUs experienced negative attitudes and these could be incorporated into education and training by illustration through vignettes and case studies. These would also be motivating factors in encouraging critical reflection by MHNs.

Methods used in TNA

LoBiondo-Wood and Harber (2006) suggest that many phenomena of interest and relevant to nursing do not lend themselves to an experimental design. This particular TNA is not an experimental venture rather it is a quantitative description of MHNs felt training needs. From the literature review, the main methodology employed in conducting TNA is a questionnaire survey method (Gould et al 2004). Surveys usually focus on areas such as; current work (task analysis), past education and experience, the method of data collection, the types of training and education the practitioner needs and how this will be delivered (Brown 2002).

The TNA survey was highly focused with the rationale that this might increase the response rate. It had a sequential structure to data collection, consisting of a range of standardised questions that would enable quantitative analysis; e.g. to determine if there are different training and education needs between dual qualified MHNs. This would require curricula pitched at appropriate levels or examine knowledge and skills needs between different clinical areas e.g. areas with a higher impact of diabetes care may require a priority in respect to access to training and education. Within this closed questions requiring one answer only were asked e.g. do you hold a general nursing qualification, while other questions could elicit a range of responses e.g. the micro examination of diabetes care (see appendix 10 for the TNA survey tool).

Key stages of the TNA process

Gould et al (2004) outline some hallmarks of successful training needs analysis projects. These include;

- The aim(s) of TNA,

- The identification of the skills/personal attributes which need to be developed in those individuals eligible for training,
- Evidence that stakeholder opinion has been sought to ensure that all have the opportunity to voice their opinions,
- The methods which will be employed to collect the required information,
- A model to guide the approach of the enquiry which can link the aims of TNA to the methods chosen to collect the data,
- A statement of the findings, with consideration of any limitations which could have influenced them and
- An account of how the findings of TNA will be implemented

The evidence for the question categories and overall structure of the TNA was derived from previous work undertaken as part of this professional doctorate (and published as Nash 2005). This TNA survey was highly focused with the rationale that this might increase the response rate. It had a sequential structure to data collection. The TNA which is essentially broken into four parts,

1. Professional demographics
2. Examination of current workload
3. Self-assessment of knowledge and confidence
4. Establishing own training needs

As with Phillips and Dromgoole (2005a) the TNA used for this project was formulated to capture an overall picture of the need for on-going education and training, and to highlight any specific training needs. Holmstrom et al (2003) used a phenomenological approach to examine Swedish health care professionals' understandings of diabetes care. They asked three questions

- What do you think is the central feature(s) of diabetes care?
- What do you find difficult to deal with regarding diabetes care?
- When do you think you have been successful regarding diabetes care?

These questions helped to structure the TNA by subtly changing the emphasis from care to knowledge, confidence and skills, which are important elements in exploring training needs (Nash 2005). Furthermore attitudes towards diabetes care were also examined to gauge how MHNs felt about taking on this aspect of care.

Phillips and Dromgoole (2005a) state that research suggests that health professionals' perceptions of knowledge in areas of practice are no indication of their actual knowledge. This is why a micro approach to diabetes care activity was undertaken; to determine what MHNs actually did when giving diabetes care. Furthermore, to enable triangulation of data a variant of this question was asked to the MHSUs (Q7) to determine if responses were similar and the same process undertaken for the education and skills needs question (Q14).

This approach to TNA could examine knowledge and skills needs between different clinical areas e.g. areas with a higher impact of diabetes care may require a priority in respect to access to training and education. Within this closed questions requiring one answer only were asked e.g. do you hold a general nursing qualification, while other questions could elicit a range of responses e.g. the micro examination of diabetes care (see appendix 10 for the TNA survey tool). The outcome is that the TNA results are more targeted in determining education and skills needs pitched at appropriate levels.

TNA Survey Design

The survey consisted of 16 open and closed themes that explored seven key areas.

1. Professional demographic data

Demographic information, of a professional rather than a social nature, was collected. For example, gender and age were not deemed as important to the research context as the five demographic variables that were collected; (i) work area, (ii) length of time qualified as a MHN, (iii) RGN qualification, (iv) any previous formal training in diabetes and (v) provision of current diabetes care.

2. Past education and training in diabetes

Examining past education and training will give some added context to the knowledge and skills assessment that will follow. However, it also gives an insight into the current 'state of play' and this can be useful in exploring attitudinal and self-assessment of training needs in light of past education – if any.

3. A micro examination of diabetes care activity

This explores the current work that MHNs are doing when providing diabetes care. This part is valuable when analysing the care activity against past education and training. This is ethically challenging as it may find that MHNs are providing some forms of diabetes care without past education or training in diabetes.

4. An assessment of workload impact of diabetes

This variable examines the amount of diabetes care being undertaken by MHNs and the impact of this on daily workload. This can identify areas where MHNs need to collaborate more with primary and secondary care services for managing complex long-term conditions.

5. Self-assessment of own knowledge of diabetes

This variable examines MHNs self-rated knowledge of diabetes care and allows for analysis between groups e.g. inpatient and community staff

6. Self-assessment of required diabetes care skills needs

This will indicate areas where MHNs feel that they need more support or more structured education and training. It can also be used to explore issues around nurses requiring training in areas where they currently practice

7. Assessing Mental Health Nurses attitudes to diabetes education and training

A Likert scale was employed to examine MHNs attitudes to diabetes care and training. Likert scales are a format for answering questions by indicating a greater the extent to which someone agrees with a statement (Howitt and Cramer 2011). A 5-point scale was constructed using a score where 1 indicated strong agreement and a score of 5 strong disagreement (Cutter and Jordan 2012); see example of Q14 below.

14. Please indicate how you feel to the following statements...					
	Strongly Agree	Agree	No Comment	Disagree	Strongly Disagree
I have received appropriate training in diabetes care	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Likert scales are a widely used and popular means of exploring attitudes. It was used in this research as a means of exploring the attitudinal domain of Bloom's (1956) learning domains as mentioned earlier. The versatility of the Likert format allowed me to

- collect multiple opinions about diabetes care and education
- assess MHNs motivation to engage in education and training
- examine MHNs attitudes to provision of diabetes care

Whittemore and Grey (2006) suggest that a major weakness of Likert scale questions is social desirability – people opt for responses that give a favourable impression of them. In this case MHNs, as professionals, may select neutral or positive responses in line with professional values rather than what they really feel.

However, TNA as an exploration of Mental Health Nurses felt needs in respect to diabetes care, gives a professional laden context to curriculum development that is not in keeping with user participation. As such it is partisan and requires balance. By exploring MHSUs experiences of diabetes care we can provide an added, richer, context and increase the quality of curriculum.

Development of the qualitative interview schedule

In organisational management, 360° feedback is a process where individuals are provided with a performance appraisal by their supervisors, peers and subordinates (Mullins 2010). This provides them with feedback from multiple perspectives, which can help to improve future performance (Hazucha et al 1993). This project has an element of 360° appraisal as it takes into account MHSUs views of training needs derived from their direct experience of diabetes care as administered by MHNs. This will further help examine the attitudinal aspect of Bloom's domains of learning.

Bearing in mind the earlier reference to Jordan et al's (2000) assertion that health service users are rarely consulted on the knowledge base expected of practitioners, I felt that excluding service users could undermine the validity of the TNA. By being dominated by professionals stating their needs, there is no guarantee that subsequent curricula will meet the needs of service users. Bias is another concern where the selection of courses may be based on external motivation linked to career progression rather than service users need. Hicks et al

(1996) suggest that many post-registration courses are constructed and delivered in a haphazard way, without systematic reference to the direct and indirect consumers of the educational programmes. In contrast, Cheetham and Chivers (2001:276) found that professionals had rich learning experiences when they listened to clients or patients as this could be useful feedback.

Therefore, without service user input there may be a serendipitous, rather than a strategic, TNA. MHSUs experiences were explored to get a deeper understanding of education and skills needs from those who had diabetes and were in contact with the mental health services where the TNA was performed.

MHSU Interview Schedule

The survey consisted of 15 items that explored seven key areas (see appendix 8)

1. General background information on diabetes

Demographic information, where diabetes was diagnosed, type of diabetes, length of time diagnosed. All participants are taking diabetes medications - six oral glycaemic agents and one insulin.

2. Past experience of diabetes care in mental health

How the person felt when diagnosis was confirmed, are they trusted to look after their diabetes, is diabetes discussed in CPA, what does the MHN do that they find most helpful, what does the MHN do that they find least helpful?

3. A micro examination of diabetes care activity

This explores the diabetes care MHSUs have received by MHNs. This is the same question from the TNA but asked to MHSUs in respect to what type of care is given e.g.

Q7. Which of the following does your mental health nurse do when helping you with your diabetes? Please tick appropriate boxes

Takes my blood sugar	<input type="checkbox"/>	Reminds me to take my diabetes medicines	<input type="checkbox"/>	Gives me diet advice	<input type="checkbox"/>
Supervises my meals	<input type="checkbox"/>	Asks me if my family have problems with diabetes	<input type="checkbox"/>	Gives me my diabetes medicine	<input type="checkbox"/>
Helps me manage my weight	<input type="checkbox"/>	Speaks with the GP/Practice Nurse for me	<input type="checkbox"/>	Helps me record my sugar readings	<input type="checkbox"/>
Tests my urine for sugar content	<input type="checkbox"/>	Explains my diabetes medicine to me so I know when to take it	<input type="checkbox"/>	They monitor my sugar intake	<input type="checkbox"/>
They give me advice on looking after my feet	<input type="checkbox"/>	They check my weight and height	<input type="checkbox"/>	Speaks with the diabetes nurse for me	<input type="checkbox"/>
Gives me advice on local diabetes support group	<input type="checkbox"/>	Gives me advice on exercise and stopping smoking	<input type="checkbox"/>	None of these	<input type="checkbox"/>

4. Views on diabetes care, education and training

Participants were asked to select, from a pre-prepared list the types of training they felt MHNs required e.g.

Q. 14 In your experience, what do you consider are skills that mental health nurses should have when looking after someone with diabetes please select as many as you like from the following list

Testing my blood and urine for sugar content	<input type="checkbox"/>	Helping me take and record my sugar readings	<input type="checkbox"/>	Giving me advice on my diet	<input type="checkbox"/>
Supervising my meals	<input type="checkbox"/>	Speaking with the diabetes nurse for me	<input type="checkbox"/>	Giving me my diabetes medicine	<input type="checkbox"/>
Helping me manage my weight	<input type="checkbox"/>	Speaking with the GP/Practice Nurse for me	<input type="checkbox"/>	Monitoring my sugar intake	<input type="checkbox"/>
Reminding me to take my diabetes medicines	<input type="checkbox"/>	Explaining my diabetes medicine to me so I know when to take it	<input type="checkbox"/>	Advice on exercise & stopping smoking	<input type="checkbox"/>

5. What you would do if you were a MHN

This examines how the experience of MHSUs could be used as a proxy for Mental Health Nursing practice; what would they do differently? This also covered their rating of confidence in MHNs regarding diabetes care.

6. Self-assessment of required diabetes care skills needs

This is the same as the MHN TNA but from a MHSU perspective on skills they would have like to have seen in 'action'. This might corroborate what MHNs state as training needs

7. Assessing MHSUs knowledge of diabetes care

Self-management is a key treatment aim in diabetes care. This question explores MHSUs knowledge of diabetes care e.g. their knowledge of symptoms, diet and blood glucose, diabetes medicines and local diabetes services. As with Q7, of the TNA, a Likert scale was employed to examine this (see below).

15. How would you rate your own knowledge of					
	Excellent	Very Good	Good	Fair	Poor
Symptoms of diabetes	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Limitations of TNA

TNA is an important part of managed education and learning (Knowles 1986), especially for complex organisations such as the NHS where education and skills need to keep pace, not only with changing technology, but changing patterns of health and illness; such as the increase in diabetes in MHSUs. However, one

aspect largely missing from TNA is service user input and how their experiences and perceptions of training needs can be used to offer a further analysis. An inclusive approach to TNA, involving the MHSU, may enable more effective targeting of limited educational resources. In order for TNA to be effective, practitioners need to engage in a process of critical reflection as failure to do this may lead to needs being unidentified. The use of MHSUs experiences may help in this process as these can augment the critical reflection and/or offer a different perspective of training needs based on direct experience.

In table 9 below, Pedder (1998) outlines some benefits and drawbacks of TNA. Gould et al (2004) were critical of the use of mixed methods of data collection in TNA, which they feel weakened methodological rigour. They found that rather than strengthening studies, using more than one data collection method made it very difficult to make comparisons about TNA across samples. However, it may not be appropriate to compare TNA across nursing disciplines e.g. specialist areas such as intensive care may require nurses to have much more propositional and technical knowledge than MHNs. However, as mixed methods research is in its 'infancy' as a research paradigm, in comparison to other, well established methods, this may be a reason for such criticism of the method.

Table 9 Benefits and drawbacks of TNA (Pedder 1998)

Benefits	Drawbacks
Realistic objectives are set within a timescale. Improvements are seen in staff knowledge	The process is time consuming
Scarce resources are targeted towards identified developments, knowledge or skills	It is difficult to target specific areas
Principles underpinning corporate governance may be demonstrated	Communication on education and training may fail, unless a multidisciplinary approach is taken
The need for clinical updating is evidenced within an organisation	Only those who attend identified courses will be able to use the knowledge gained and pass it on to colleagues

TNA may be seen to resemble an audit, which provides data on respondent's subjective needs regarding education and training therefore, TNA may lead to a populist curriculum derived from subjective frequency scores. The danger of this is that training needs may reflect more the needs of practitioners rather than what the service user needs (Nash 2002). However, TNA can also indicate attitudes toward education and roles. Dyson et al (2009) observe that TNA tools may fail to capture the comprehensive nature and the complexity of nursing practice and so do not comprehensively assess their learning needs. Therefore, a micro-examination of diabetes care activity was undertaken and this is a further rationale for seeking MHSUs views.

The approach adopted in this project is different from traditional TNA as it includes evaluations of (a) self-efficacy, (b) attitudes to diabetes care as part of incorporating Bloom's learning domains and (c) views of 'patients' who will be practice upon. This added dimension can contribute to the development and delivery of the curriculum.

Sampling

In research, there are two main types of sampling – probability sampling, which involves random selection of subjects, and non-probability sampling, which does not rely on random selection. Denscombe (2010:25) suggests that non-probability sampling is used when researchers find it difficult or undesirable to choose their sample by chance. LoBiondo-Wood and Haber (2006) suggest that purposive sampling is appropriate in the collection of exploratory data or data from a highly specific population.

This study employed purposive sampling in both the qualitative and quantitative arms because both samples had specialist knowledge, practice and experience of diabetes. I considered that both samples, by giving different perspectives on

education and training needs, would have views and experiences that had a high potential to contribute to the development of any diabetes curriculum. I thought that MHSUs, as care receivers, would have a different perspective of education and skills needs than MHSUs. As mentioned here in the literature review (p37) Crawford et al (2002) found that service user input had the potential to contribute to a wide and varied range of changes and improvements to practice. This perspective would be experience based and therefore different to the professional and clinical base of MHNs.

MHNs hold a particular form of expertise in mental healthcare, as professionals and clinicians. This enables them to give technical and clinical data on knowledge, skills and attitudes that would be important in generating curriculum content. However, MHSUs also hold a form of expertise; they are experts by experience and their expertise is derived from their experiences as service users (Noorani 2012). Having data from both groups was a rationale for using mixed methods and purposive sampling is a reflection of the pragmatism of this – using what will work best to answer the question.

Inclusion criteria

Quantitative survey	Qualitative interviews
Qualified MHN Working in adult and inpatient and community mental health Consented to participate	MHSU with a diagnosis of diabetes Living in the community Over 18 years of age Consented to participate Is mentally well to participate in the interview Fluent in English

Table 10: Project inclusion criteria

Exclusion criteria

Quantitative survey	Qualitative interviews
Non-qualified MHN MHNs working in Children and Adolescent Mental Health MHNs working in Care of Older Person settings	Inpatient MHSUs MHSUs non- fluent in English

Table 11: Project exclusion criteria

Accessing the samples

Quantitative

Upon receipt of all permissions from the ethics committee and local managers all qualified Mental Health Nurses working in adult inpatient and community settings were invited to complete a survey of their diabetes care skills and training needs. A purposive sample of 220 Mental Health Nurses, working in a London Mental Health Trust where invited to complete the TNA survey; 146 responded giving a response rate of 66%.

Qualitative

Information regarding the study was given to MHSU members of Middlesex University Advisory Group. This group co-teaches on a range of courses provided by Middlesex and have links to various voluntary organisations that provide independent support to service users. They acted as a hub to contact MHSUs with diabetes that where in the community at the time of the research. They took an information pack back to each area, which included information posters, participant information leaflets and a letter of introduction containing my contact details. Individuals interested in participating could contact me directly and I would

arrange a telephone interview. The geographical area of both parts of the study matched, therefore MHSU participants were likely to have experienced, or have current experience, of diabetes care provided by the MHNs in quantitative sample.

Sandelowski (1995) suggests appropriate sample size in qualitative research is difficult to estimate and it is a matter of judgment and experience. The size of the target population, MHSUs with diabetes was not known. Therefore, a small sample was appropriate for an exploratory study. Semi-structured interviews were conducted with seven MHSUs who met the inclusion criteria.

Data Collection

Figure 5 is a visual representation of the project data collection process

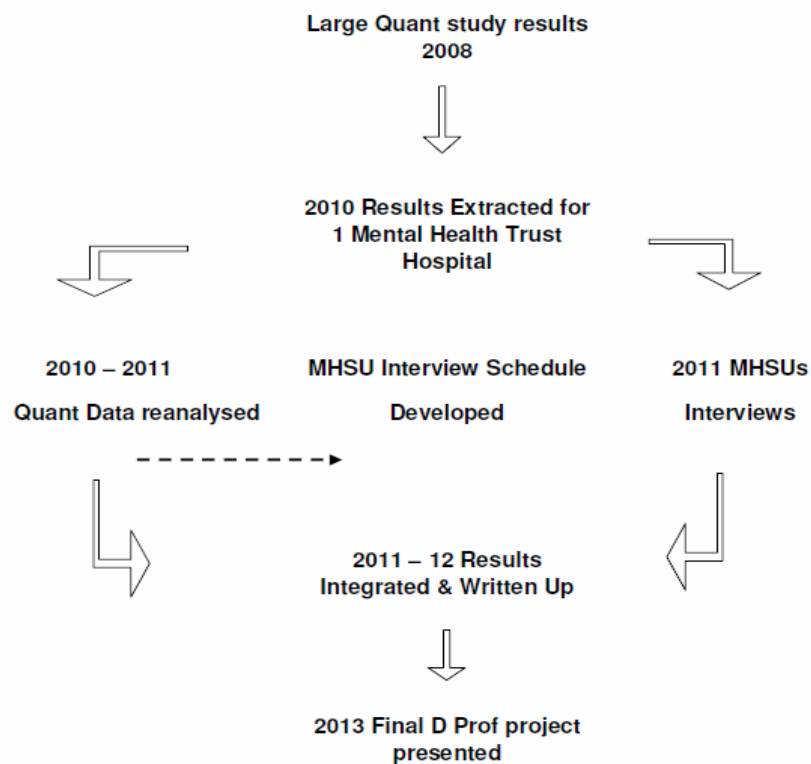


Figure 5 Data collection process for current project

Data collection occurred in two phases with the TNA preceding the qualitative interviews. Creswell and Plano Clark (2010:54) suggest that being responsive to new insights is an essential aspect of conducting mixed methods research and refer to this as “emergent mixed methods research” where new reasons for mixing methods emerge when a study is underway. This was certainly the case with this project where the lack of service user input into examining MHNs training needs arose as a concern following the quantitative study. Furthermore, it would appear from the results of this study that the outcomes of the TNA for mental health nurses in 2008 had still not been addressed in 2011. MHSUs accounts of their experiences of diabetes care is a reminder to health care organisations that TNA requires practical outputs that meet the identified skills and knowledge gaps. Something that does not appear to have happened here, even after three years.

Quantitative data collection

TNA Survey

I went to each clinical area and from the duty rosters I left the prerequisite number of research packs for each MHN. This included a survey, consent form, participation information leaflet, a letter of introduction and a self-addressed envelope (see appendix 4). The instruction to participants was for them to complete the TNA survey and leave it in a central collection point in the office for me to collect. In order to increase response rate and minimise non-response bias I arranged to follow up those who failed to respond by organizing three separate collection dates to collect returned questionnaires (Cutter and Jordan 2012).

Collaboration was an important feature of the project and it was essential that there was a strategic aspect to the project so that partnership working could be seen. I joined the local physical healthcare policy and standards for practice development group and was involved in and consulted in developing various policies and procedures on physical health. This also had a benefit of keeping me up to date with how the curriculum could respond to service needs. Furthermore I

developed a research network of contacts that would help with data collection and with whom I could liaise when giving reminders about collecting questionnaires.

Data collection had to be effectively timetabled and co-ordinated between all the wards, community teams and the key links in each area, in order to minimise disruption to established routines. To reduce costs I decided that I would ask all staff to complete questionnaires and place them individually in sealed envelopes. These would then be placed in one big envelope that I could then collect from the ward office.

To maximise response rate there were to be three questionnaire collection stages. An initial contact was made prior to the first collection date. When then I went to collect what was returned, another collection date was set and staff were encouraged to complete a questionnaire. Once the second collection date was met a final date for cut off was given when there would be no further questionnaires given out or included in the study. This method helped to reduce costs of postage and ensured that staff that were on holiday or internally rotated to night duty could be informed of the research and invited to participate in it. It also afforded me the opportunity to visit a range of clinical areas, to meet staff and answer any questions regarding the research.

Qualitative data collection

Following ethics approval from MDX ethics committee, information regarding the study was given to MHSU members of Middlesex University Advisory Group who acted as a hub to contact MHSUs with diabetes who were in the community at the time of the research. These individuals are from MHSU groups from the areas where the mental health trusts in the quantitative study are located. Therefore, participants were likely to have experienced, or have current experience, of diabetes care provided by the TNA sample.

The research was advertised in each area and information packs also given for those who might be interested, this included information posters and a letter of introduction, which had my contact details (see appendix 5). Individuals interested in participating could contact me directly and I would email them details of the research including a participant information leaflet and consent form. I would also arrange a suitable date and time to conduct the telephone interview.

Telephone Interviews

Smith and Glass (1987) state that telephone interviews are a common and important method in data collection. However, they appear to have something of a 'lowly' status as a data collection method, even in qualitative research. This may have something to do with a lack of visual contact in other interview methods. The choice of telephone interviews was pragmatic as I am based in Dublin so logistically it was difficult and expensive to arrange interviews.

Each participant was emailed the interview schedule prior to the actual interview. This allowed us to focus and structure the interview in order to minimise extraneous conversation and keep the interview flowing. I think that sending the interview schedule to the participants allowed them to focus their thoughts and contributed to some rich data being generated. While a criticism may be that this allowed participants to reflect and rehearse I felt it was necessary for them to recollect experiences prior to the interview. Furthermore, a postal survey may be completed over a period of time where respondents might want to deliberate on questions before completing it. Interviews lasted between 35 and 50 minutes and were digitally recorded and independently transcribed with the consent of participants.

When conducting the interview I relied heavily on my MHN engagement and active listening skills. This was necessary to minimise the effect of a lack of face-

to-face contact. Establishing rapport was important from the start so that participants did not feel threatened by the process or of revealing personal information. Opening with general conversation and ice-breaking where I explained the research and asked if they had the interview schedule. I asked about their diabetes and explained the research to help decrease anxiety and also reassure participants. At the end of the interview I asked permission to do member checks and to send transcripts, by email, for their personal records. I also reassured the participants that if they required anything from me they could contact me by email.

Data Analysis

Quantitative

The TNA survey was analysed using SPSS v18. This involved data analysis to produce descriptive statistics for inpatient and community MHNs related to their training needs, self-evaluation and self-efficacy. The chi-squared test for independence was used to determine if there is an association between existing knowledge, care giving and training needs e.g. MHNs may have experience of diabetes care giving, but feel that they do not have sufficient knowledge or they may lack confidence in their knowledge and skills.

In order to analyse knowledge levels each answer was assigned a value ranging from one - poor knowledge up to five - excellent knowledge with the scores for the six questions in this section being combined to give an overall knowledge score for each individual.

Similarly there were six questions in both the self-evaluation of knowledge and self-efficacy of skills sections of the questionnaires. To ascertain an individual's overall knowledge and skill level each of the possible answers were assigned a

score ranging from one for poor to five for excellent. The scores for each individual's knowledge level on different aspects of diabetes were then pooled to assign a value for overall knowledge and self-efficacy. The responses for the questions in the skill section were assigned values ranging from one for poor to five for excellent. The overall skill level for each participant was obtained by summing the scores of the six elements in the section.

Qualitative Analysis

Patton (1990) suggests that there are no straightforward tests for ensuring results in qualitative research are valid and reliable. However, there are processes that we can follow, outlined in the methodology chapter, which can bring an element of validity and reliability. Morse (1994:23) believes that while the process of qualitative data analysis remains poorly described, it is not a passive endeavour, believing that there are four cognitive processes integral to all qualitative methods

- *“comprehending - the phenomenon under study*
- *synthesising - a portrait of the phenomenon that accounts for relations and linkages within its aspects*
- *theorising - about how and why these relations appear as they do, and*
- *recontextualising - or putting the new knowledge about phenomena and relations back into the context of how others have articulated the evolving knowledge” (Morse 1994:25).*

The diversity of qualitative research methods will influence how these steps are used. However, the model does present an explanation of how interview data developed in this project from conversation into specific themes.

Process of qualitative analysis

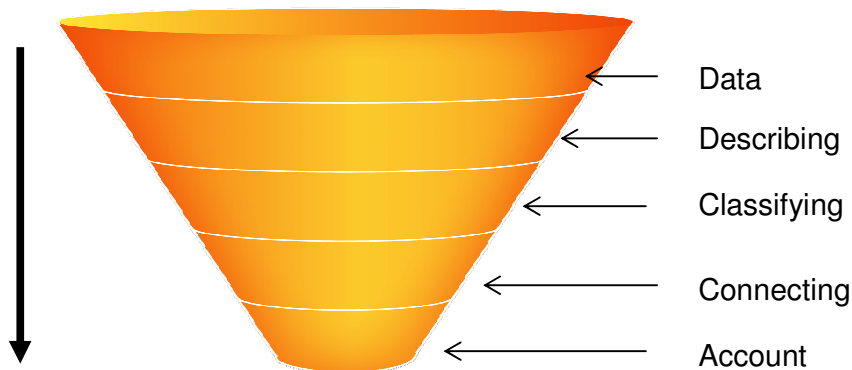
A process of thematic analysis based on Braun and Clarke (2006) was used to identify significant statements concerning MHSUs experiences of diabetes care (see table 12). These were then used to generate six different themes, which will be presented in the findings chapter.

Table 12 Process of thematic analysis based on Braun and Clarke (2006)

1. Familiarise oneself with your data	Data transcribed, read, re-read listening to audio-file, notes taken, development of ideas
2. Generate initial codes	Significant statements colour coded across transcripts
3. Search for themes	Significant statements from transcripts grouped into data streams
4. Review themes	Each set of significant statements read to develop a map of emerging themes
5. Define and name themes	Ongoing analysis to refine and name each theme
6. Produce research report	Final report written illustrating themes with selected participant quotes, use of literature to underpin theory

Dey (2005) conceptualises qualitative data analysis as a spiral. However, for this project I found that a funnel diagram (figure 6) better illustrates the iterative process of qualitative data analysis. The downward movement illustrates the process of distilling lots of interview data into an interpretation of participant's experiences.

Figure 6 Project qualitative data analysis depicted as a funnelling process (adapted from Dey 2005)



Data integration and management

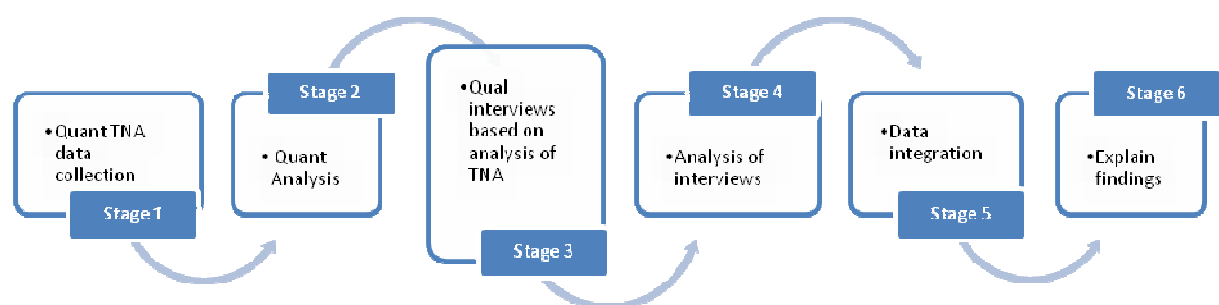
Triangulation is the use of two data sources to increase validity or enhance understanding of the phenomenon under investigation (Denzin 1970). However, some assumptions regarding triangulation and mixed methods research are contradictory. For example, Casey and Murphy (2009) refer to methodological triangulation as mixed method research while Holloway and Wheeler (2002) suggest data triangulation is different from mixing methods.

It would appear that the mixed methods approach to data integration is procedurally the same as data triangulation, with the key differentiation at the epistemological level. For example, Hammersley (1992) does not recognise the simple quantitative–qualitative dichotomy. Therefore, triangulation – using one method to support another – is a tacit acknowledgement that there are indeed two distinct research traditions. However, the pragmatic epistemology would see ‘triangulation’ as a natural way of approaching data analysis. Therefore, as the method is mixed, analysis is termed data integration, rather than triangulation.

The process of data collection and integration is outlined in figure 7. Data integration occurred at the interpretation phase where there was comparison of data. I found that this approach allowed me to gain a deeper appreciation of MHNs diabetes care skills needs. The qualitative data was used to give a richer context to the quantitative data in the analysis. For example, by getting MHSU input I could enhance the validity of findings and get additional meaning from them, much more than using a mono-method. This allowed me to realise that MHNs and MHSUs have similar ideas about learning needs in diabetes. Although, for MHSUs, there was a particular context to diabetes care that was not captured by the quantitative method; e.g. diabetes care when mentally unwell and when well and most significantly how stigma acted as a barrier to appropriate diabetes care in the first instance.

Data integration and interpretation did identify some conflicting results between both samples, but also identified areas of agreement and using qualitative data gave an additional context to quantitative data that was not apparent within this as a single method. These will be discussed later in the project.

Figure 7: Integration of qualitative and quantitative data



Traditional TNA appears to exclude the service user, or customer, from the process of assessing training needs. This is strange given that using consumer views as a means of evaluation is a well-established way of assessing quality. I felt that it would be best to include service user views of MHNs diabetes education and

skills needs as an integral part of informing the curriculum content from the outset to reduce the potential for tokenism.

Reflexivity

In qualitative research, reflexivity is a process where researchers engage in explicit self-awareness (Patton 1990). Finlay (2002:532) defines reflexivity as “thoughtful, conscious self-awareness encompassing the continual evaluation of subjective responses, inter-subjective dynamics, and the research process itself”, with Pyett (2003) adding that it includes an examination of our own role in the construction of meaning.

My own reflections enabled me to recognise how my own biases may impact on the research process. My own philosophical position as holding positivist beliefs about research and how this could clash with the constructivist aspect of the work, especially when embarking on analysis did concern me. I was conscious that I needed to give parity to both sets of data. This reflection enabled me to increase self-awareness in the data integration phase so that I was able to use MHSUs experiences of diabetes care to give deeper meaning to MHNs training needs. The experiences of MHSUs added immensely to the construction of meaning in diabetes care, beyond that of bio-science and clinical skills to the impact of attitudes as barriers to utilising such knowledge and skills.

I also kept field notes arising out of my interviews with participants, which helped with the audit trail. I had the functional information regarding dates, times and durations of interviews and sending data for transcribing. However, I also needed to keep notes of my own thoughts and reflections on the interviews and participants experiences, which I did following each interview. This enabled me to have a more neutral approach to interpreting and analysing the transcripts. I feel

that having this analysis process independently verified enhanced the confirmability and reliability aspects of quality assurance in qualitative research.

The reflexive process allowed me to discover one aspect of neutrality that I found difficult to achieve, successful bracketing. Tufford and Newman (2012:81) define bracketing as a *“method used by some researchers to mitigate the potential deleterious effects of unacknowledged preconceptions related to the research”* and thereby to increase the rigor of the project. I thought that my prior knowledge and work would have meant that ‘nothing would surprise me’ so to speak. However, I was disavowed of this when I listened to and then read the transcripts of lived experiences of the participants. Their recounting of attitudes and practices they experienced exasperated me to the point that, on listening to the recordings, I found myself sighing heavily and tut-tutting at different points.

These were unconscious responses and on reflection derived from me being embarrassed to hear how MHSUs were treated when relaying symptoms of being unwell. Being an outsider to the research process does not mean that I am an outsider to my profession. When examined under the critical gaze of MHSU experience I found the rhetoric of MHN more ‘heroic’ than grounded in reality. Phillips and Dromgoole (2005a) suggest that health professionals’ perceptions of knowledge in areas of practice, for example diabetes care, are no indication of actual knowledge. Indeed, this is illustrated in the following comment from the TNA;

Respondent 50 (MHN) *“Diabetes mellitus is one of the groups of psychosomatic illnesses Mental Health Nurses need regular training updates.”*

The value of the MHSU experience here is that it exposed my own vulnerability to professional or clinical rhetoric, as I did not include anything in the quantitative questionnaire about stigma. Given the seriousness of diabetes, I did not consider stigma as an issue. The area of stigma and diagnostic overshadowing merits specific post-doctorial research on my part. Indeed I have already co-authored an

article on this subject with Rethink Mental Illness England, a mental health charity, where we incorporated MHSUs experiences of diagnostic overshadowing and stigma when trying to have their physical care needs met. This area does constitute an under explored barrier to appropriate physical care for MHSUs and one that I may not have discovered if I had not adopted a mixed methods approach to this study.

Conclusion

This chapter has outlined the key aspects of project activity undertaken in this mixed method approach to exploring Mental Health Nurses diabetes education and skills needs. This incorporated a quantitative descriptive survey of Mental Health Nurses education and training needs and a qualitative interview of MHSUs to elicit their views of skills they deem Mental Health Nurses should have. This makes a useful counterbalance to the overtly professional slant of TNA. I explored the development of the TNA and the subsequent MHSU interview schedule, paying particular attention to data collection methods, sampling, data analysis and issues that arose, which impacted on the project. The chapter ended with a reflexive account of my role in the research.

Chapter 5 Findings

General introduction

A mixed methods approach was used to examine MHNs diabetes education and training needs. A TNA consisting of a questionnaire survey was used to determine the impact of diabetes on MHNs workload, MHNs perceived knowledge, confidence and skills in diabetes care and to self-assess MHNs diabetes skills needs. The results of this survey were used to develop an interview schedule for MHSUs on their diabetes care experiences. Participants were asked about their experiences of diabetes care, their levels of confidence in MHNs to provide care and what they felt MHNs skills and education were, based on their direct experience.

Creswell and Plano-Clark (2010) state that data analysis in mixed methods research consists of analyzing the quantitative data using quantitative methods and qualitative data using qualitative methods. Greene (2007:142) suggests that in mixed methods research

“...inquiry conclusions, interpretations or warranted assertions arise from the mind of the inquirer, not directly from the output of a statistical or thematic analysis”.

The chapter will report the results of both branches of the study in their usual formats. As the study had a sequential explanatory design, quantitative results will be presented first before moving to a presentation of the qualitative results. However, the chapter will endeavour to present findings in an integrated way to enhance understanding of the diabetes education and skills needs of MHNs.

Quantitative Findings

Introduction

Research was conducted to examine MHNs training needs in diabetes care. All MHNs working in a London Mental Health Trust (n=220) were invited to take part in a questionnaire survey. 146 responded giving a response rate of 66%. The average number of years qualified was 10.64 (Sd 9.7) with a range from one to 35 years. Of these 37% (n=25) had a general nursing qualification and 70% (n=101) currently provided care to MHSUs with diabetes. 34% (n=50) worked in community (locality CMHT, forensic CMHT, assertive outreach, crisis\home treatment), 41% (n=60) worked in inpatient areas (acute adult care, PICU and forensic admission) and 36 (n=25%) worked in rehabilitation (adult and forensic rehabilitation).

Is diabetes care a clinical problem?

Impact of diabetes care was measured on a scale where a great deal was defined as daily impact , a lot every 2 – 3 days, some weekly, occasionally fortnightly and rarely monthly. This was to illustrate the frequency of impact of diabetes care which showed that for nearly half of the participants the impact was considerable 57% (n=69). See Table 13.

Impact of care	Frequency	%
Great deal (daily)	37	31
A lot (2 – 3 days)	18	15
Some (weekly)	14	11
Occasionally (2 weekly)	11	9
Rarely (monthly)	41	34

Table 13: Impact of diabetes care on MHNs workload

A large proportion of MHNs carried out specific diabetes care activities as part of their workload; in particular activities such as blood glucose monitoring, supervising and administering medication, supervising meals and giving dietary advice were carried by more than half of nurses assessed, see Figure.8 below.

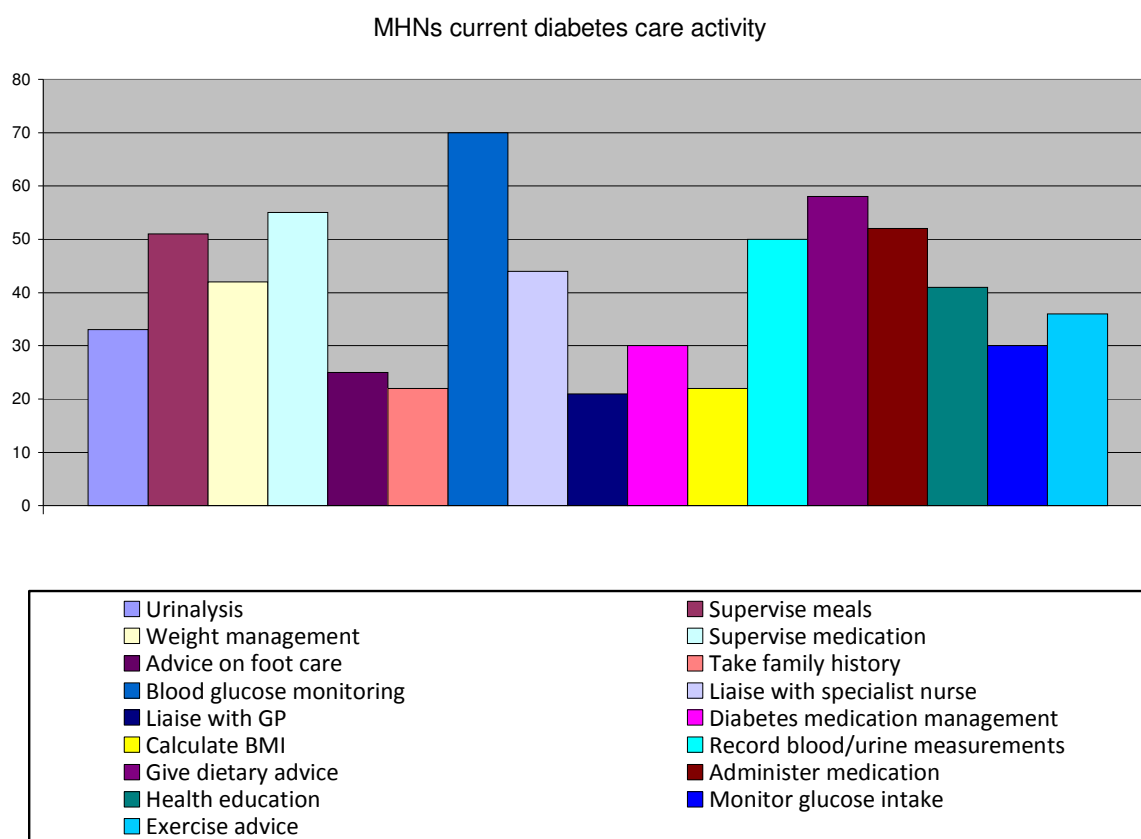
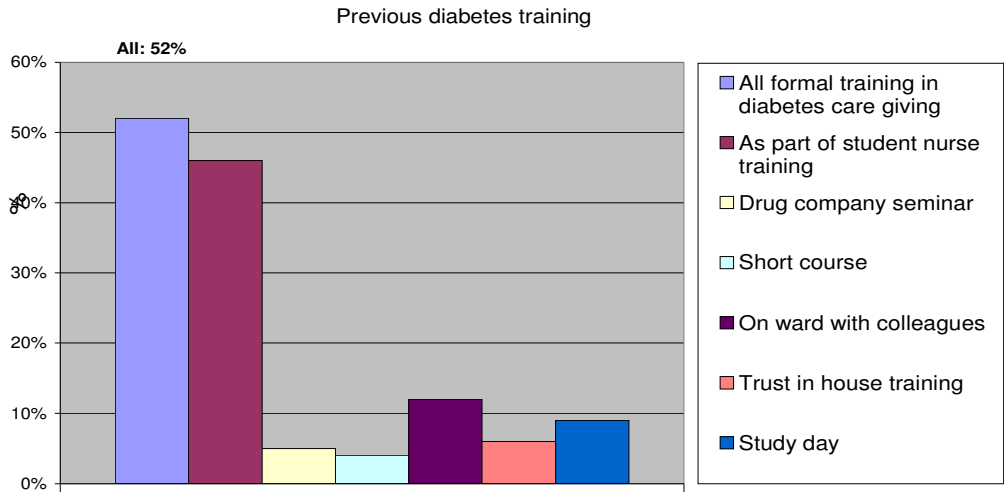


Figure 8: Types of diabetes care given by MHNs

Formal training in diabetes

Analysis shows that while the majority of respondents stated they had received some formal training in diabetes care 53% (n=65), the difference is quite small, 47% (n=57) stated they had no formal training. However, 24 MHNs did not respond to this question. More importantly, for those who stated that they had formal diabetes training the most frequent place that this occurred was as part of their student nurse training, see Figure 9 below.

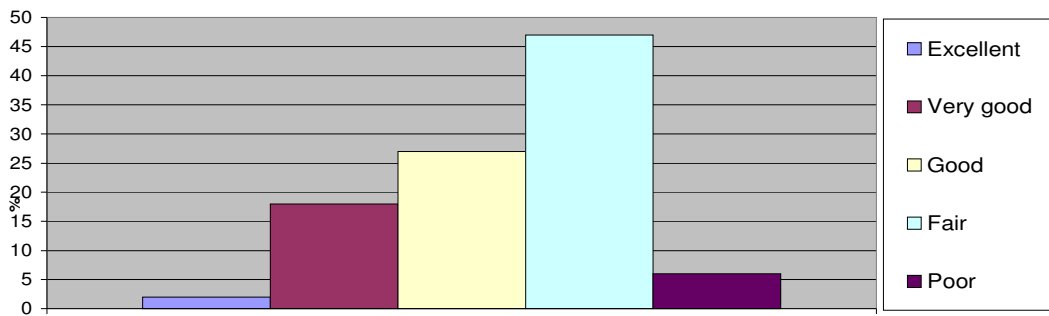
Figure 9: Sample previous diabetes training activity and location



MHNs knowledge of diabetes

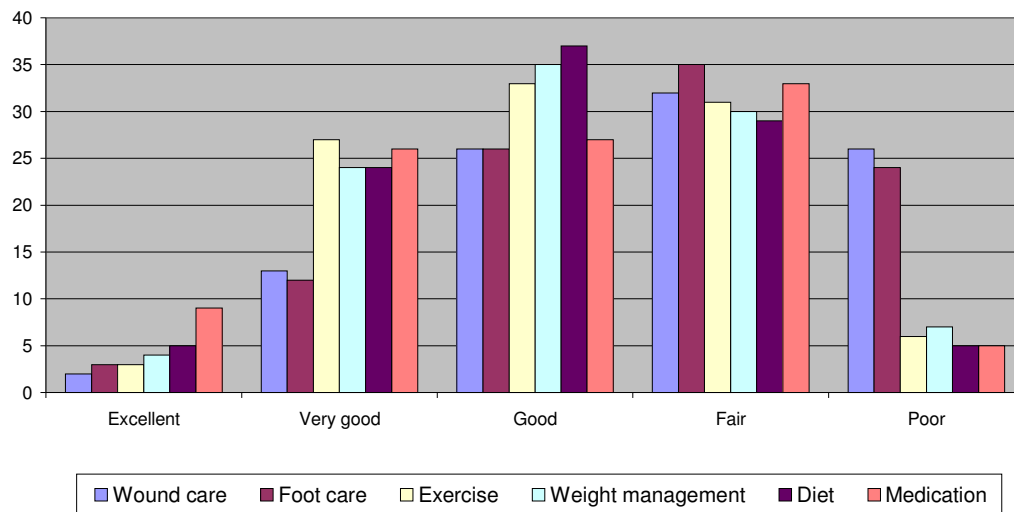
MHNs knowledge was examined in a variety of ways e.g. general diabetes knowledge, knowledge of specific aspects of diabetes care and their perceived confidence in diabetes care skills. Figure 10 represents the sample's self-reported overall knowledge of diabetes and Figure 11 represents the sample's self-reported specific knowledge of certain aspects of diabetes care.

Figure 10: Sample self-reported overall knowledge of diabetes



47% (n=58) of the sample rated their overall knowledge of diabetes as good to excellent while 53% (n=66) rated their overall knowledge of diabetes as only fair to poor.

Figure 11: Sample self-reported specific knowledge of general aspects of diabetes care.



The examination of knowledge of specific aspects of diabetes care showed greater knowledge in health lifestyle aspects of diabetes care such as exercise and weight management (rated very good to good), but knowledge of potential complications and long term effects of diabetes such as wound care and foot care were rated as only poor to fair.

An examination of general diabetes knowledge showed that knowledge of local diabetes services was rated lowest. Nurses rated knowledge as greater in areas such as diabetes symptoms and blood sugar monitoring. However, overall knowledge was rated as only fair to good, see fig.12.

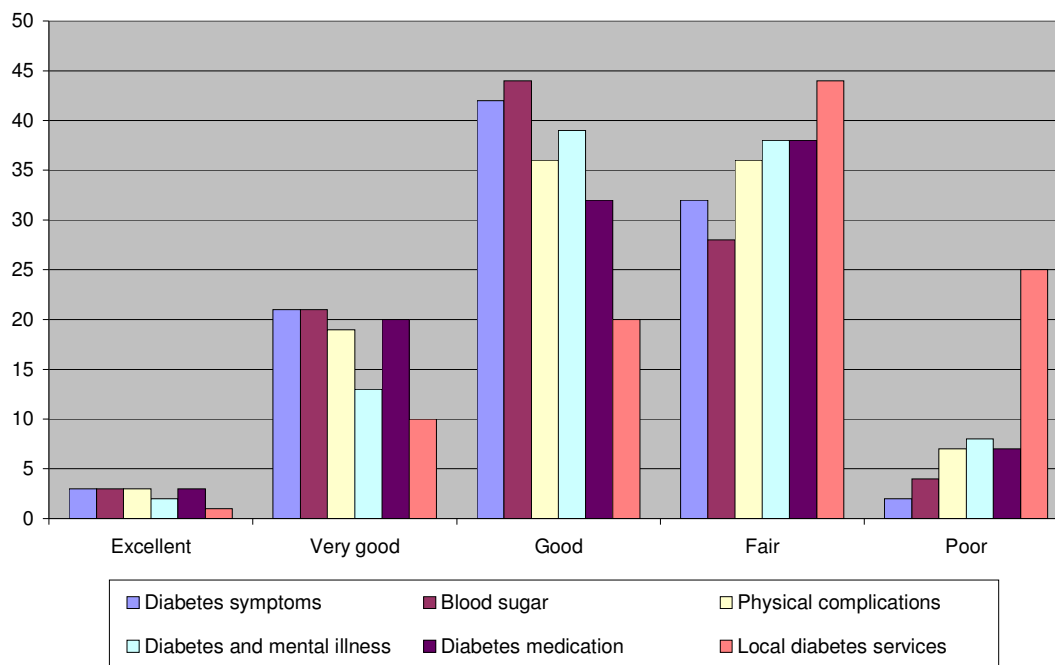


Figure 12: Sample self-assessment of diabetes knowledge

Statistical Tests - Knowledge

In exploring the data from the TNA some significant patterns began to emerge. This will now be explored in relation to diabetes knowledge and self-efficacy in aspects of diabetes care. A Chi-squared test was used to explore the relationship between MHNs self- assessed levels of knowledge of different aspects of diabetes (Qs. 10 and 11) and their formal training in diabetes. To enable this test the original five point self- assessed knowledge rating that ranged from excellent, very good, good, fair, poor, was collapsed to two categories “fair – poor = insufficient knowledge” and “good to excellent = sufficient knowledge”. Table 14 gives an outline of the valid and missing cases for the areas of knowledge of aspects of diabetes relating to (i) diet (R10e), (ii) knowledge of blood sugar levels (R11b) and (iii) knowledge of diabetes complications (R11c).

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Formal training in diabetes * R10e	122	83.6%	24	16.4%	146	100.0%
Formal training in diabetes * R11b	117	80.1%	29	19.9%	146	100.0%
Formal training in diabetes * R11c	117	80.1%	29	19.9%	146	100.0%

Table 14 Valid and missing cases for statistical analysis of diabetes knowledge

The Chi-squared test was performed on each category in questions 10 and 11 of the TNA (see appendix 10). Tables 15, 16 and 17 show that there are significant differences in the self-assessed knowledge of MHNs who have received formal diabetes training and those that have not in respect of diet, knowledge of blood sugar levels in diabetes and diabetes complications.

Variable		Diet (R10e)		Test Values				
		Sufficient	Insufficient	X ²	P value	Odds ratio	CI	
							Lower	Upper
Formal Training in diabetes	Yes	29	29	11.953	.001**	4.333	1.924	9.758
	No	12	52					
Total		41	81					

Table 15 Differences in self-assessed knowledge of MHNs with and without past diabetes training concerning diet and diabetes

Variable		Knowledge of blood sugar levels (R11b)		Test Values				
				χ^2	P value	Odds ratio	CI	
		Sufficient	Insufficient				Lower	Upper
Formal Training in diabetes	Yes	50	12	9.125	.003**	3.735	1.641	8.506
	No	29	26					
Total		79	38					

Table 16 Differences in self-assessed knowledge of MHNs with and without past diabetes training concerning knowledge of blood sugar levels

Variable		Knowledge of diabetes complications (R11c)		Test Values				
				χ^2	P value	Odds ratio	CI	
		Sufficient	Insufficient				Lower	Upper
Formal Training in diabetes	Yes	45	17	12.661	.000**	4.286	1.966	9.342
	No	21	34					
Total		66	51					

Table 17 Differences in self-assessed knowledge of MHNs with and without past diabetes training concerning knowledge of complications of diabetes

Perceived self-efficacy looked at confidence in diabetes skills. Liaising with local services was again a particular concern with almost 65% (n=94) reporting fair to poor self-efficacy in this area.

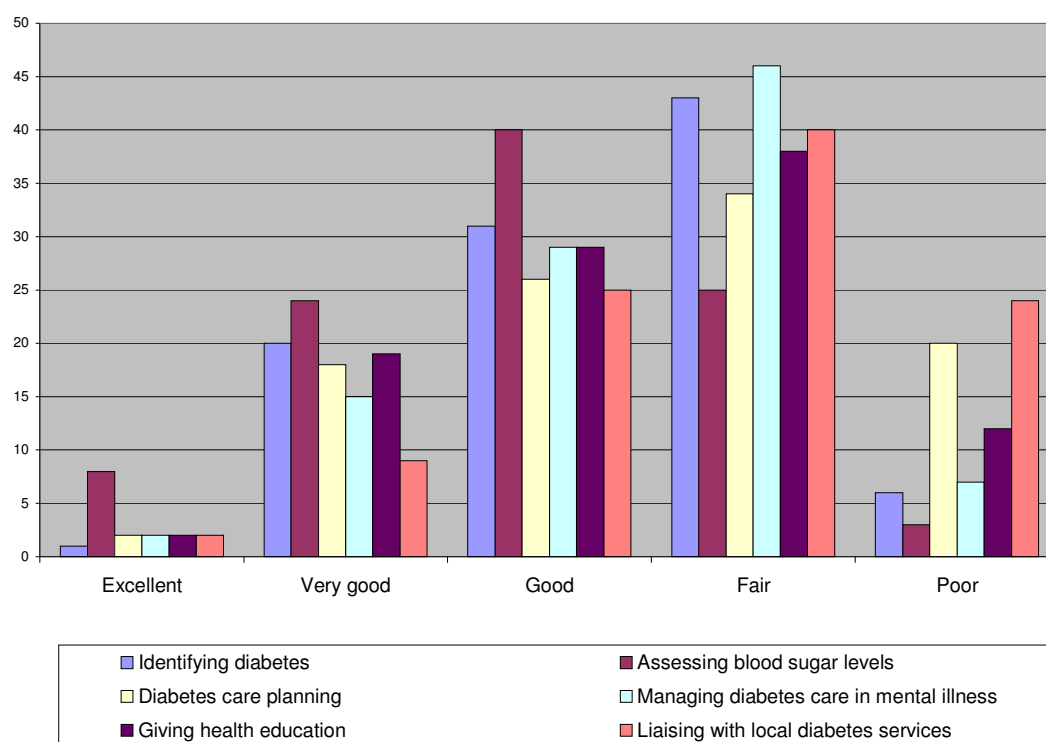


Figure 13: Perceived self-efficacy

Statistical Tests – Self-efficacy

A Chi-squared test was used to explore the relationship between MHNs self-reported levels of self-efficacy and their formal training in diabetes. To enable this test the original five point self-efficacy scale (Q.12) ranging from excellent, very good, good, fair, poor, was collapsed to two categories “fair – poor = Not confident” and “good to excellent = Confident”. Table 18 represents valid and missing cases for statistical analysis of self-efficacy. Tables 19 to 23 are the results of the Chi-squared test performed on the following categories from the TNA; Table 19 Identifying diabetes in your client group, Table 20 Assessing blood sugar levels in people with diabetes, Table 21 Diabetes care planning, Table 22 Managing diabetes care in people with mental illness, Table 23 Giving health

education advice regarding diabetes and Table 24 Liaison with local diabetes services

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Formal training in diabetes * Q12a_recode	116	80.0%	29	20.0%	145	100.0%
Formal training in diabetes * Q12b_recode	115	79.3%	30	20.7%	145	100.0%
Formal training in diabetes * Q12c_recode	116	80.0%	29	20.0%	145	100.0%
Formal training in diabetes * Q12d_recode	122	84.1%	23	15.9%	145	100.0%
Formal training in diabetes * Q12e_recode	121	83.4%	24	16.6%	145	100.0%
Formal training in diabetes * Q12f_recode	122	84.1%	23	15.9%	145	100.0%

Table 18 Valid and missing cases for statistical analysis of self-efficacy

Variable		Identifying diabetes in your client group		Test Values				
				X ²	P value	Odds ratio	CI	
		Not Confident	Confident				Lower	Upper
Formal Training in diabetes	Yes	21	41	9.863	.002**	3.596	1.670	7.746
	No	35	19					
Total		56	60					

Table 19 Identifying diabetes in your client group

Variable		Assessing blood sugar levels in people with diabetes		Test Values				
				χ^2	P value	Odds ratio	CI	
		Not Confident	Confident				Lower	Upper
Formal Training in diabetes	Yes	11	51	6.770	.009	3.290	1.406	7.701
	No	22	31					
Total		33	82					

Table 20 Assessing blood sugar levels in people with diabetes

Variable		Diabetes care planning		Test Values				
				χ^2	P value	Odds ratio	CI	
		Not Confident	Confident				Lower	Upper
Formal Training in diabetes	Yes	27	35	5.320	.021	2.593	1.217	5.524
	No	36	18					
Total		63	53					

Table 21 Diabetes care planning

Variable		Managing diabetes care in people with mental illness		Test Values				
				χ^2	P value	Odds ratio	CI	
		Not Confident	Confident				Lower	Upper
Formal Training in diabetes	Yes	26	38	8.733	.003**	3.248	1.539	6.856
	No	40	18					
Total		66	56					

Table 22 Managing diabetes care in people with mental illness

Variable		Giving health education advice regarding diabetes		Test Values				
				χ^2	P value	Odds ratio	CI	
		Not Confident	Confident				Lower	Upper
Formal Training in diabetes	Yes	21	43	13.901	.000**	4.437	2.066	9.527
	No	39	18					
Total		60	61					

Table 23 Giving health education advice regarding diabetes

Variable		Liaison with local diabetes services		Test Values				
				χ^2	P value	Odds ratio	CI	
		Not Confident	Confident				Lower	Upper
Formal Training in diabetes	Yes	33	31	7.843	.005**	3.252	1.479	7.152
	No	45	13					
Total		78	44					

Table 24 Liaison with local diabetes services

Tables 19, 22, 23 and 24 show that there are significant differences in the reported self-efficacy of MHNs who have received formal diabetes training and those that have not in respect of identifying diabetes, managing diabetes care, giving health education advice regarding diabetes and liaison with local diabetes services.

There was no significant differences between knowledge assessment and area of work. All MHNs irrespective of their past training or whether they had a general nursing qualification felt that they had learning needs in the area of diabetes.

Respondents were asked about other influences that might be relevant to their ability and expectation to deliver diabetes care. Table 25 illustrates the sample reported attitudes towards diabetes care.

	Strongly Agree	Agree	No Comment	Disagree	Strongly Disagree	Missing data
	%	%	%	%	%	%
I have received appropriate training in diabetes care	2 (n=3)	20 (n=29)	17 (n=26)	36 (n=52)	25 (n=36)	-
It is not my job to provide diabetes care to my client group	5 (n=7)	6 (n=9)	8 (n=12)	52 (n=76)	29 (n=42)	-
It is the Doctor's job to provide diabetes care	4 (n=6)	6 (n=9)	11 (n=16)	41 (n=60)	32 (n=47)	6 (n=9)
General Nurses should be employed in mental health settings to look after physical care problems	5 (n=7)	13 (n=19)	12 (n=18)	44 (n=64)	25 (n=36)	1 (n=2)
Physical Care should be covered in the CPA	35 (n=51)	52 (n=76)	4 (n=6)	7 (n=10)	2 (n=3)	-
I require training in diabetes care	46 (n=67)	40 (n=58)	6 (n=9)	7 (n=10)	1 (n=2)	-

Table 25 Sample reported attitudes towards diabetes care

There was a highly positive attitude towards diabetes care being part of the MHN role 81% (n=119). However, only 22% (n=31) of respondents felt that they had received appropriate diabetes training. Irrespective of past education and training in diabetes, the majority of respondents 86% (n=125) recognized their need for diabetes education and training. This is probably related to the length of time that has lapsed since training and also a need to update knowledge and skills in light of the current impact of diabetes care in MHNs workload. The particular respondents required training in advice on foot care, diabetes medication

management, causes of diabetes in mental illness, health education and writing a diabetes care plan (see fig.14 below).

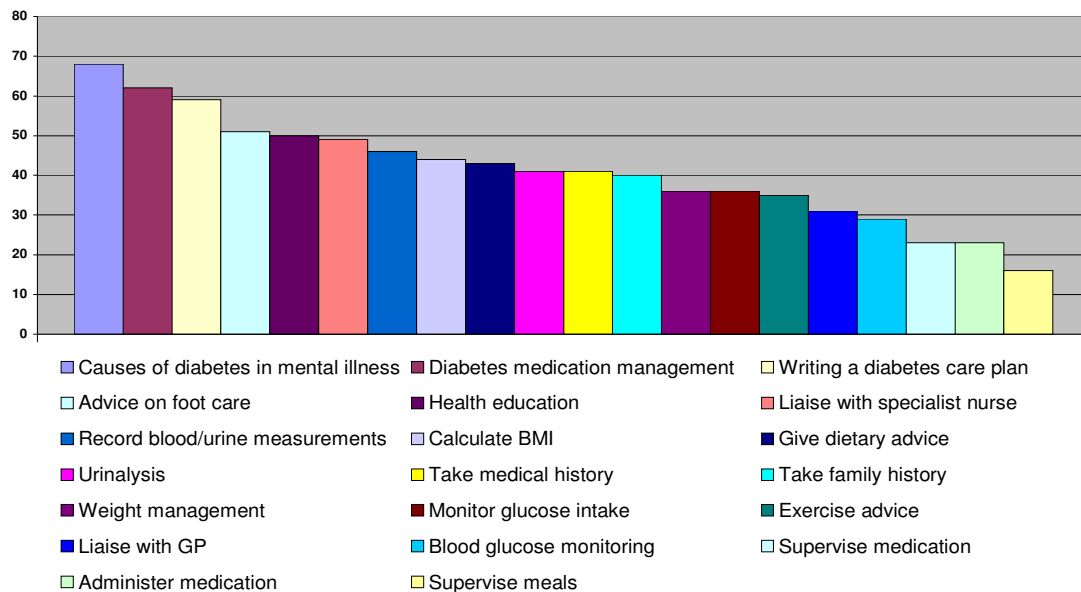


Figure 14 Sample self-reported diabetes care training needs

Quantitative Summary

The quantitative findings illustrate the challenge of diabetes care for MHNs. Diabetes care is a growing part of MHNs clinical workload. However, there seems to be variable knowledge and skills in the sample, which may have implications for the quality of care service users receive. For example, overall analysis shows that respondents reported a 'good' knowledge of diabetes but only a 'fair' confidence and self-efficacy e.g. a 'good' knowledge of diabetes symptoms (fig.12) but only a 'fair' confidence in identifying symptoms (fig.13). This presents an obvious training need. Yet this may be linked to the currency of skills, which is a clear issue. For example, most respondents reported student nurse training as the place of formal education and training. Therefore, knowledge and skills may be grounded in evidence from a different era.

Irrespective of these significant differences in knowledge and self-efficacy, there were no significant differences noted between those with and without formal training and the areas where MHNs would like more training (Q15). This illustrates that there is a great desire among MHNs with and without formal diabetes care training to develop and enhance their knowledge in this area.

The quantitative analysis has presented a view of the professional and clinical aspects of MHNs and diabetes care. We will now examine MHSUs experiences of diabetes care by MHNs.

Qualitative Findings

Research was conducted on a purposive sample of MHSUs to explore their experiences of diabetes care and elicit their views on MHNs diabetes education and training needs. Semi-structured interviews took place between June 2011 and October 2011. Seven (7) people participated in the interviews, three (3) males and four (4) females. For consistency, the author (MN) conducted all interviews. Participants were emailed the interview schedule prior to interview and each was interviewed once; interviews lasted between 35 and 50 minutes and they were conducted by telephone. A password protected MP3 digital recording was made to enhance the quality of output. All participants consented to this and each was sent a copy of the transcript for their further comments or clarifications.

All participants were aged between 18 - 65 years and all had a diagnosis of diabetes and severe mental illness, for which they had been receiving for a number of years (see participant profile table 15 below). Interview participants have been assigned a pseudo-name so that direct quotes can be reported. This has been done to preserve participant anonymity.

The range of time with a confirmed diagnosis of diabetes was 2½ years to 25 years. Six participants have a diagnosis of type 2 diabetes and one participant not entirely sure what type of diabetes they had. Four participants mentioned being symptomatic for a few years preceding a formal diagnosis. At the time of the interview, all participants (7) were currently taking diabetes medication - six (6) taking metformin and one (1) participant taking insulin. All participants described various complications of diabetes that they had, or currently have. Diabetes medicines are prescribed by the GP.

All participants were currently in contact with mental health and primary care services for their respective mental and physical health problems.

Table 26 MHSUs Participant Profile

Id No	Pseudo-name	Gender	Age	History of diabetes	Diabetes Type
F14636	Fiona	Female	Adult 18-65 years	10 years	2
F23442	Mary	Female	Adult 18-65 years	2 years	2
F34802	Kathy	Female	Adult 18-65 years	11 years	2
M13205	John	Male	Adult 18-65 years	5 years	2
M23204	Michael	Male	Adult 18-65 years	25 years	2
M35229	Paul	Male	Adult 18-65 years	7 years	2
F42929	Jennifer	Female	Adult 18-65 years	21/2 years	Unsure

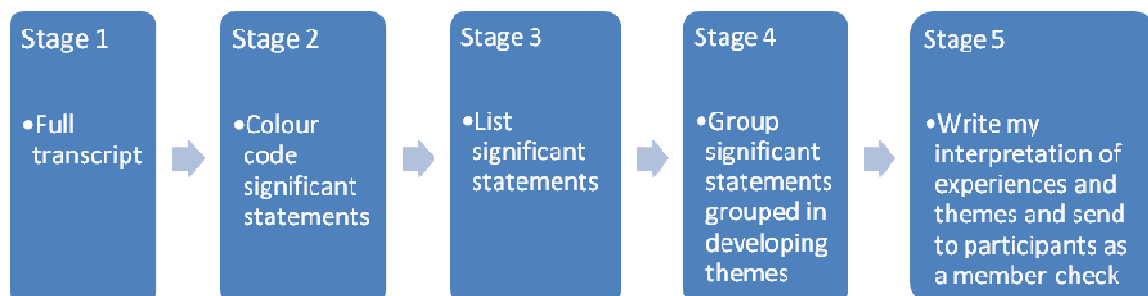
Data analysis

Interview transcripts were analysed using a thematic analysis (see p99). Braun and Clarke (2006) suggest that thematic analysis provides a flexible and useful research tool that can potentially provide a rich and detailed, yet complex account of data.

Process of data analysis and theme development

Figure 15 represents the process of thematic analysis used in the analysis of all interview transcripts. Having an auditable and structured process is one of the ways that illustrates confirmability; one of Lincoln and Guba's (1985) criteria for establishing trustworthiness in qualitative research.

Figure 15 Process of transcript analysis



Themes

Thematic analysis of the transcripts produced six main themes that were developed to represent participant's experiences.

Theme 1 MHNs diabetes care education needs

There was a broad general agreement between MHSUs and MHNs regarding the micro examination of education and training needs in diabetes care. Both groups felt that biological science and clinical nursing skills were important aspects of MHNs care giving ability. For example particular education needs expressed by participants included areas of nutrition, foot care, general health advice, advice on regular diabetes check-ups, eye care, practical advice and care regarding attending appointments, diabetes medication, clinical skills such as glucose monitoring and weight management. These were similar to the needs expressed by MHNs in the TNA.

However, the reality of MHSUs experiences meant that clinical and biological science education needs seemed secondary to issues such as negative attitudes, integrated care and stigma. The need for MHNs to bridge the divide between mental and physical health; development of whole person health care rather than holistic healthcare was required. There is a feeling that, while needs are being met, they are not being met in an integrated way. This splitting could then lead to difficulties in developing therapeutic relationships as the basis of addressing physical health, which was a concern for some participants.

One participant mentioned leadership to change the culture of how people are treated e.g. having integrated and individualized care. There was a sense that the skew towards the clinical nursing aspect of skills led to a disempowerment of the participant. Therefore, while it was deemed important that MHNs liaise with primary care services this was context specific; participants were more interested in getting such help when they experienced a mental health crisis and such liaison would be too stressful. In general, participants did not want this done for them, but with them. It seems that as participants were already managing their diabetes care without much support from MHNs that any support offered should be on their terms. This is probably why advocacy came up as an educational theme from one

participant, encouraging service users to visit their general practice from another, much more practical help such as arranging appointments from another. An illustration of this is;

Paul (the category "Supervising my meals") ...no they shouldn't [supervise my meals] but they should give guidance as to what is a good diet but not supervising your meal.

Participants valued education and training for MHNs and one participant summed up this theme clearly when they said, regarding MHNs skills and education and training,

Fiona: "Oh that's the other thing I was going to say is that I think diabetes nurses should run training for psychiatric nurses. I mean if diabetes nurses are doing psycho education with newly diagnosed people, why can't they train up psychiatric nurses on the wards and in community in really good diabetes awareness and they could invite them to come and, you know sit in a clinic for example, they could go on to the wards and do teaching sessions with the staff on the wards or in the community."

However, again participant's experiences of diabetes care shifted the emphasis away from the biological and clinical aspects of education and skills training and onto practitioner's experiences and attitudes. MHNs negative attitudes appear to be strong formative experiences that have generated negative feelings about the extent that diabetes care can be facilitated by MHNs. This is why the emphasis seems to be more in favour of therapeutic relationships, engagement and getting to know MHSUs more so that reports of signs and symptoms are taken seriously in the first instance e.g.

Kathy: "I'd actually first of all engage that person, yes, actually engage them in their own care which would mean discussing things like diet...but to be quite honest it needs that culture of not listening properly to people with mental health conditions"

Jennifer: "Well they don't, I don't think they, in fact my new care coordinator, I don't think is even aware that I have diabetes, as far as I know, I haven't actually met with him to be honest with you, he took over my care 3 months ago... I'm never asked about whether I am following a diabetes care plan or how I'm managing my diabetes or how it might be affecting me in terms of my

mental or emotional state, so no I don't think they're even aware that you know I have a care plan for my diabetes."

John: there have been times when I've kind of felt that I really need a bit more engagement from them but you know they believe I will manage so yeah.

Michael: "In my day I had 2 good nurses and they used to come and sit with me and I gave a lot of trust and these things are not happening nowadays, they don't have the therapeutic relationship. That's what's missing and which is very, very important, you know?"

Theme 2: Stigma

While stigma is not a new phenomenon in mental health, this study has identified how participants have experienced it in relation to their experience of diabetes care. Participants reported various experiences and feelings of physical symptoms not being believed by MHNs or other practitioners when they were originally reported, feeling that their physical health was routinely overlooked or having a feeling that they were not trusted to manage their diabetes. Some experiences were quite explicit as one participant explained,

Mary: Well I personally think that medical, any medical staff really, they need to understand that mental health is an illness and that the people are actually people, not just, because in hospitals mental health, the minute that word is mentioned its like you're suddenly nothing, a nobody, you're like, you know whatever you're saying you're lying or you're faking it or you're just a waste of time, wasting their time.

John: Part of my thinking at that time was well you've kind of overlooked this because you know I have mental health problems, you've just sort of thought well he's kind of making this up and because I wasn't clear about what I was feeling, I just said my feet feel strange, my feet don't feel right at night time, they feel awful and I wasn't really able to, I think perhaps explain it in a way which made a lot of sense."

Paul: " If I see anyone other than my GP, if I go to my group practice and they look at my notes and they don't really hear me, what I'm saying, they'll often

say that's in your head or they won't quite say it like that, but they'll allude that a problem that I'm having is mental health and they haven't even looked up for me, it's almost like as if they haven't even heard what I've said or listened to what I've said"

Jennifer: "I didn't feel that I was going to be, you know you said did you feel trusted, to look after your diabetes"

Two participants had an experience where the focus of concern was the potential risk associated with the use of diabetes medication for self-harming purposes rather than as a maintenance therapy for diabetes.

Jennifer: "I think first of all to see that my diabetes is not necessarily a point of self-harm, not to see it in a negative way".

Kathy: "Well I'd gone in voluntary because I knew my mental health was breaking down and I brought my diabetic medication with me, well all the medication that I could and I had to wait for a long time in the emergency reception. I asked for, I could feel my diabetes going low and I asked for a drink of tea with sugar in it, I never got that and anyway I was later on taken to the ward and this would have been in the early hours of the morning and I told the nurse that I needed something to eat and to take my diabetic medication and it was withheld until the day staff came on duty."

This is a form of stigma that appears to have a depersonalizing effect on the participants and added an extra dimension to the theme of recasting symptoms as manifestations of mental illness; by inferring that the focus of monitoring diabetes treatment was suicide/self-harm prevention rather than control of diabetes as a complex condition.

The concept of stigma features highly in MHN training and education, yet participants have experienced encounters where their mental illness diagnosis came more to the fore when trying to get help for their diabetes. The experiences of stigma are not confined to mental health settings and participants did recall experiences of negative encounters in 'physical/general' health care settings also.

Stigma, as an unconscious mechanism, may have led to MHNs defaulting to a mental health narrative rather than taking the illness experiences at face value and investigating the signs and symptoms. The same may be true for the health related behaviours, e.g. the use of diabetes medication, which was linked to potential self-harm. This will be covered more fully in theme three.

Theme 3 Diagnostic Overshadowing

Some participants recalled experiences where their reports of being physically unwell were passed off as being part of their mental illness. This process is referred to as diagnostic overshadowing where the diagnosis of mental illness overshadows everything else about the person. Therefore concerning reporting symptoms of physical illness practitioners default to a mental illness cause and not a legitimate physical symptom. Diagnostic Overshadowing is intimately linked with stigma; it is stigma in action. I felt that it was an issue that deserved a theme in its own right. Participants commented that

Kathy: To be quite honest I'm surprised that they don't do whole care because if somebody has got bipolar, you know people talk about sugar rush or whatever or they can become so weak that they can't get up, you'd have thought that they'd look at the total condition but one is just treated as a matter of fact without any facts being examined for that individual and the other one, the mental health problem is the one that they throw the medication at, whereas I thought that maybe I'd have reached this stage of recovery a lot earlier if my whole health had been looked at...it's just it's a larger one with hyper mania so that can be confused with somebody going manic, you know..."

Mary: "I find that nurses tend to be, can be very cold, very like dismiss you if you've got mental health problems but you've got physical problem as well but that doesn't matter...I've had black outs and everything and sleep attacks because I haven't been given my medication by the nurses and I did make them aware and I did tell them I didn't have my medication all day... because in hospitals mental health, the minute that word is mentioned it's like you're suddenly nothing, a nobody, you're like, you know whatever you're saying you're lying or you're faking it or you're just a waste of time, wasting their time"

John: I was thinking just now that I want to, I think it might be relevant to this, I was having a lot of problems with my feet, previously I was very active, I did a lot of activity, I love walking but I was actually finding it very difficult to walk and the general feeling around me was that I'm lazy or I can't be bothered, I'm trying to avoid these walks but of course I was avoiding them because I was hurting but it got mixed up with the emotional context of it, people thought I didn't want to go out and do things with them and stuff like that and it got very frustrating, people around me got very frustrated with me.

Paul: I went to Greece about 3 years later and on about the 4th last day I was there, it was incredibly hot, it was May, one of the hottest Mays they've ever had and it was about 38/40 and I was getting like rashes all round my face and they were basically because I was getting yeast infections in the creases of my face and that is a sign post to diabetes. So when I came home I'd forgotten that they'd said, you know 3 years earlier that you're on the verge of getting diabetes and I looked on the internet and when I worked out that it was basically like some sort of fungal rash, one of the indications was that you could have diabetes. I went to the doctor straight away and I said I think I might have diabetes, they tested my urine, it was quite high, it was over 8 in my urine and they did some blood tests and it was over 8 and they said yeah. They sent me to the hospital and I was past borderline then. They immediately started me on treatment and it took me about a year, 2 years to be able to take the medication.

Some participants' mental illness diagnosis was linked to the potential for self-harming behaviour with their diabetes medication. This appears to be another aspect of diagnostic overshadowing where mental illness behaviours (in this instance self-harm) appear to be given a higher priority than the physical illness, diabetes.

Jennifer: To be honest with the care coordinator, in terms of whether I was using my insulin or thinking about using my insulin in that crisis, to be honest I hadn't thought of it and what was least helpful was the thought had then been planted in my mind...not that I've ever acted on that or wanted to act on that but that to me was least helpful, that it was actually seen as another way of self-harming.

The problem with stigma and diagnostic overshadowing is that they can become barriers to timely care; if MHNs do not believe or investigate symptom reports, then it opens the up the risk of people living with untreated, or poorly managed diabetes. The consequences of the complications of this were clear for John;

John: I was told that I've lost about 90% of the feeling in my feet by the time I was diagnosed and I'm thinking yeah but I was telling you 5 years ago that I had problems with my feet, so how has it got to this stage before you actually do anything about

When directly asked one participant reported that they had never experienced diagnostic overshadowing in their interactions with practitioners.

Theme 4 the split between mental and physical health

Another manifestation of negative attitudes and the fourth prevailing theme in this work, linked to stigma, is characterized by the dichotomy, or split, between the participant's mental health and their physical health. It seems that both complex long term conditions have been separated giving the participants two distinct illness identities (i) the diabetic who is largely ignored in mental health care and (ii) the mental health service user who is largely ignored in primary care. The following participant's comments illustrate this,

Jennifer: "I'm never seen as a whole person; you know there's just parts of me that people deal with... I think always in terms of, for the mental health practitioner just to be aware that it is a whole person that you're dealing with, that has many parts, that are inter related and to actually be aware that when you're speaking to a person, that those interrelated parts do impact each other".

Mary: "... the first thing I'd want is for them to accept the whole person with all their problems, not just one particular part..."

Paul: "We don't discuss my diabetes, my psychiatrist does not, none of my mental health services even register that I'm diabetic..."

John: "... my own history for the past 12 years seems to have been either they look at my physical issues or they look at my mental health issues and of they ignore the other because it doesn't quite fit in with the way they're thinking, so yeah."

This has presented participants with varying degrees of problems with the experience of non-holistic care. While care is given and needs are being met this is done in a distinctly compartmentalized but roundabout way, and in the experience of participants there is little integration of care, leaving them in some instances acting as a go between, between mental health and primary care services. Some of the responses were extremely closed e.g.

John: "...try and help people understand that it isn't just because you're feeling bad in your head that you're feeling all these pains"

Fiona "I think they need to remember that they're treating a whole person, not just one part that's mental health and you know and then the other part that's, you know that's not mental health."

Kathy: "It was to me" [a noticeable split between physical and mental health],

Paul: "they see my diabetes as being my diabetic problem".

This split between the participants physical and mental health appears to have led to participants having a negative perception of MHNs ability to provide diabetes care. While one participant stated that they had confidence in MHNs skills in diabetes care the remainder stated that they had very little confidence.

Losing confidence like this can have a negative impact on quality of care. In a cumulative sense, if participants have poor experiences, feel stigmatized and have low confidence in MHNs, then they may not report diabetes problems to them because they do not feel confident anything will come of it. This will shore up problems for the future so it is vitally important that relationships and confidence are quickly re-established.

Theme 5: Receiving a diagnosis of diabetes

None of the participants were diagnosed with diabetes when in mental health services, even when participants were displaying signs and symptoms. These went unnoticed by MHNs and other practitioners. Indeed three participants were diagnosed, seemingly by chance, when they were referred to hospital for unrelated mental health or diabetes appointments. Referrals were at the behest of the GP and not the mental health service provider. The other participants (n=4) had diabetes diagnosed within their GP primary care service.

None of the participants reported that their diabetes was ever recognized when in the care of mental health services and all were receiving concurrent mental health and primary care services. That is to say participants recalled being symptomatic when receiving care by MHNs but these symptoms were apparently unrecognized.

Fiona: "Well it didn't quite sink in, I was devastated and on the one hand I wasn't surprised because I was overweight and I had a poor diet"

Mary: "It was, I kind of think I brought it on myself because I was...drinking lots of high energy drinks"

Kathy: "It made me feel really sad and fearful because I've had a number of relatives whose diabetes has been implicated in their deaths..."

John: "In some ways I was quite relieved because I'd been going for several years to my GP saying I've got problems with my feet"

Michael: "I was not surprised but I thought you know if I can control it I should be alright because my mother, she lived with diabetes for a long time, ripe old age"

Paul: "I just sort of, I can't believe there's another bloody problem in my life (laugh)"

Jennifer: I guess my first reaction was oh no another thing to deal with and I think I was quite fearful because I wasn't given any information whatsoever

Theme 6 "If you were a mental health nurse, what would you do differently for someone like you?"

One way of exploring how to change MHNs diabetes practice was by doing a 360° role reversal so that participants could put their negative experience of diabetes care into something positive that could contribute to MHNs practice. This was a particularly good question as the responses illustrated the complexity of having two complex long-term conditions. Here participant's views did allude to more advice and knowledge on clinical aspects of diabetes care management, but in a much more practical advice driven content. This was nicely illustrated by one participant,

John: "My doctor said eat regularly, yeah but I don't get up regularly (laugh), you know so how do I eat regularly?"

Kathy: "We've got to treat each person as an individual, we've got to know their history and find out a bit more about how their condition affects them and you know in a multidisciplinary team that information could be passed on. "

This illustrates how participants valued more practical help, support and information and if they were caring for people with diabetes, they would use their experience as an asset to help. There is recognition that MHNs had "book knowledge" but that real practical support came from people with experience of diabetes. One participant found that peer support was more beneficial for them because it was a

Kathy: "real practical support because people have experienced it themselves, so it's more than book knowledge."

However, participants did not feel confident that MHNs could offer practical advice on managing two complex long-term conditions. Therefore, a problem may arise where MHNs trying to navigate complex conditions do not involve the service user up until the endpoint. It would appear that participants want to be involved at all stages of their diabetes care and would like more advocacy from MHNs, rather than be disempowered by them. Participants did accept that at times MHNs would take over diabetes care e.g. when they were feeling too stressed, but this would be the exception and not the general rule.

Participants felt that their experiences of diabetes or diabetes care are not seen as assets in a clinical or practical sense and seem to go relatively unused in reality. However, I feel these experiences can be rich sources of learning that can introduce MHNs to different perspectives of living and coping with diabetes. This can enhance MHNs personal knowledge of MHSUs lives with diabetes, which can indicate how MHNs can engage and develop effective partnerships in diabetes care with MHSUs. For example, to be more proactive in the organizational management of diabetes care by helping with outpatient appointments, check-ups, checking letters and such. Some participants did recognise that their vulnerability to stress or pressure might make them at times unable to manage two complex conditions without support and empowerment from MHNs.

Poor attitudes that lead to DO were interpreted as discrimination by two participants, e.g.

Fiona: So from kind of awareness around that and you know also we talk about anti discriminatory practice well we need to stop that within people who have mental health problems, not being discriminated against, just you know because they've got mental health problems.

One participant suggested that “anti discriminatory practice” should be used as an approach to ensuring that MHSUs are not discriminated against when they report physical symptoms observing that

However, while MHNs should ask MHSUs with diabetes about their care plan and see how they can help them with the management of it, they should also

Jennifer: So that can be, you know they need to be aware of that kind of thing and also just to be, like with the care coordinator to talk, it would have been very helpful for somebody when I had been diagnosed with diabetes, to actually sit down with me and look and talk through if there's going to be interactions between the medication I'm on for my mental health and the diabetes medication. I actually had to take that initiative, if somebody had taken that initiative, you know been a little bit more proactive I think I would have felt less fearful. So yeah.

To this end, there is an opportunity for 'mutuality learning' where MHNs should look on the experiences of participants as a means of learning how *not* to provide diabetes care. This may help prevent MHNs developing or forming negative attitudes or stigmatising MHSUs. Promoting learning through sharing MHSU experiences is already being used in many mental health courses where service users take classes and give lectures to develop a deeper understanding of the experience of mental ill health. The same principle should be applied with MHSUs with physical conditions (like diabetes) so that MHNs get some idea of the experience of diabetes from a MHSU perspective and how they could make care better and of a higher quality.

Participants valued education and training for MHNs and one suggested that

Fiona: "Oh that's the other thing I was going to say is that I think diabetes nurses should run training for psychiatric nurses".

The recurring theme of looking to the service user with diabetes rather than at them resurfaced in a note of caution from one participant

Michael: I'd go and presentation in junior nurse induction course and I always say the first thing you do, the first thing you do is make this relationship, otherwise the rest of the time, whatever you try to do or say they will not listen to you, so make that relationship first time, otherwise nothing will work after because I know in my case at that time I was in horrible stage but I do

remember what people, what they said and this type of thing sticks to your mind.

Qualitative Summary

This project is concerned with exploring MHNs education and training needs in diabetes care for MHSUs. Participants each had recollections of having their physical health needs either not met by MHNs or MHNs telling them that diabetes problems were for “the GP”. Stigma, diagnostic overshadowing and splitting mental and physical health were all vivid MHSU experiences. However, understanding, empathy, trust and genuineness are core parts of MHN education, but there seems to be a barrier to utilising such fundamental tenants of care in a diabetes context. This might be linked to lack of knowledge or skills regarding diabetes. However there is no doubt that it has left participants with the burden of understanding that MHNs, in their experience, seem reluctant to share.

While participants valued the professional, biological science and diabetes clinical skills components of education and training, deeming these important, this contrasts with a greater emphasis on other concepts not addressed in the quantitative study such as the basic core values of mental health care. Key aspects for any MHN education that participants felt were important include; whole person care, being believed when reporting symptoms, not being stigmatised because of mental illness diagnosis, developing a nurse patient relationship so that diabetes care can be managed in partnership, MHNs acting as advocates of MHSUs, attitude change and valuing the service user experience more for learning purposes. Revisiting these fundamental aspects of MHN will be important in any diabetes training as it appears that a significant barrier to care for participants was having their reports of feeling unwell legitimised and appropriately acted upon.

These skills relate more to attitude and organisational change, where valuing the service user’s diabetes experience more would engender better partnership working which is important for diabetes self-management. Such change will require

leadership in both clinical and educational practice. For example, challenging negative and stigmatising attitudes such as diagnostic overshadowing will require political tact, awareness raising and changing a professional culture that may not appreciate, or recognise it, as a problem.

Chapter 6 Discussion

Introduction

The purpose of this chapter is to critically discuss and explain the study findings. The chapter will also present some recommendations regarding MHNs diabetes education and training needs. I will also present evidence of the products of this research. Burke Johnson and Onwuegbuzie (2004) do not believe that mixed methods research is currently in a position to provide perfect solutions, they believe that at this time, researchers use a method and philosophy that attempts to fit together the insights provided by qualitative and quantitative research into a workable solution. Therefore, the chapter will begin with a review of the study weaknesses associated with the chosen research method.

Diabetes is recognized as a great public health concern. It is a costly and complex condition that, if not treated appropriately, can expose the sufferer to severe complications that can shorten life or greatly reduce the quality of it. In mental healthcare diabetes is emerging as an important issue of clinical and educational concern for MHNs (Nash 2009). However, there remains very little research into MHNs knowledge, skills, attitudes or confidence in providing diabetes care to MHSUs, or MHSUs experiences of living and coping with two complex long-term conditions.

Study limitations

Weaknesses of Mixed Methods Research

The primary limitation of the study is the perceived incompatibility of mixing two opposing research worldviews in one research project. Tashakkori and Teddlie (2003) confirm this as a key weakness seeing the perceived incompatibility in using

two diametrically opposed worldviews, with differing ontologies, epistemologies and conceptions, in the pursuit of truth and knowledge. This is probably the greatest weakness of mixed methods research as it might generate more epistemological debate than trying to apply findings in practice that might be useful.

Mixed methods research can also be more time consuming and expensive as researchers are conducting two different studies. In respect of the qualitative data collection method the telephone interview may be impersonal and not conducive to getting in-depth information from participants as there is no immediate visual feedback.

Another study limitation is a lack of a common typology for study quality and integrity and how this should be achieved in a uniquely mixed method way. Rather what I have encountered is the somewhat uneasy marriage of quantitative and qualitative means of ensuring quality measures such as rigour, validity, credibility and transferability. The lack of a unique, or integrated, mixed methods quality assurance framework may weaken the concept of it as a single paradigm if it relies on splitting measures of ensuring rigour into those for quantitative and qualitative methods. O'Cathain et al (2008) found a similar problem when exploring UK mixed methods studies finding researchers mainly describing the separate design components of a study making judgements about the quality of studies difficult. However, mixed methods research is still developing as a paradigm and this may explain the absence of a commonly agreed typology. Furthermore, it is probably more important for research to demonstrate rigour and have quality control mechanisms irrespective of the paradigm.

House and Howe (1999) suggest that a pragmatic research approach may be inadequate as the viewpoint of 'what works' lacks specifics in that we don't know for whom or to what end. The process of TNA used here has identified the education

and skills needs of MHNs in relation to diabetes care. However, there was a gap in the 'for who' part of the equation and I now know that without exploring the lived experiences of MHSUs with diabetes, the curriculum would only reflect professional interests. As the findings have illustrated, without the pragmatic approach I would never have known about the effects of stigma and diagnostic overshadowing and how these were barriers to timely diabetes care for participants. This would subsequently have been omitted from any education and training and therefore probably have weakened it.

It is also important to critically reflect on using mixed methods research to ensure that one method does not skew, or unduly influence the other. For example, the development of the qualitative interview schedule in this study was influenced by the results of the TNA survey. This may have skewed the emphasis towards the biological science/clinical skills aspect of professional education as stigma and negative attitudes were not addressed. It was only when MHSUs experiences were explored that this imbalance was corrected. Had I not adopted a mixed methods approach and investigated MHSUs experiences I would have missed out on a substantial aspect of physical health care that is overlooked; stigma and diagnostic overshadowing.

Sampling issues

Bias may become an issue in research if those who did not respond to the research differed from those who did (Bryman 2012:235). In this study it may be possible that only those who had direct contact in providing diabetes care to MHSUs with diabetes responded to the TNA. Non-responders may not see the value of engaging with a research topic if they believe it does not directly relate to them or their role. Unfortunately, I could not do a comparison of characteristics between responders to non-responders in the TNA survey. The specific information required for comparison e.g. questions two to five could not be supplied by the Trust as they did not have a specific spread-sheet with a breakdown for comparison.

The sample size for the qualitative interview was small and a selection bias may have occurred in the MHSU interview sample. I did not know what the potential MHSU sample would be, i.e. MHSUs with diabetes. Therefore I could not compare the characteristics of those that responded and participated in the research with those that did not. This also relates to the ethical aspect of having the advocacy group acting as gatekeeper; due to confidentiality and anonymity, they may not have kept records of people they asked but who did not participate. Bias in sampling may contribute to problems with the generalisation of participant's experiences to other MHSUs with diabetes. For example, a selection bias may have occurred where participants included in the study are not representative of the population of MHSUs to which the results will be applied. The service user groups may not represent all MHSUs with diabetes in the borough where the research occurred. Similarly, the sample where self-selecting so it may be that the more articulate service users were the ones that responded. The telephone interview method may also have contributed to this bias as people may have been more comfortable talking face to face. However, there is a possibility that the telephone survey method may have contributed to a responder bias as only those with access to a telephone and internet (to receive email) may have submitted themselves for the study. This resource bias may have served to introduce a responder bias.

Furthermore, the MHSU cohort was drawn from a community sample. Inpatient MHSUs with diabetes were excluded, and it is difficult to estimate how many this would account for. I needed to consider the ethical implications of asking MHSUs who may be acutely unwell to participate in this research and decided that if a large enough sample could be gained from the community, inpatients would be excluded. However, this does not mean that the voices of inpatients are no less important and these need to be actively and ethically sought out. However, there is a possibility that those MHSUs who were more articulate or confident in participating in the telephone interview participated in the study and this may serve to impact on the transferability or generalisability of outcomes of the qualitative arm of the study to other MHSUs who may not have similar experiences.

The MHN sample was recruited from Adult MHNs so results may not reflect training needs of MHNs in areas such as Child and Adolescent and Mental Health or Care of Older People. The rationale for this is that the bulk of physical health problems are located in the 18 – 65 year old age group. Therefore, by excluding these areas the findings may not be generalisable or transferable to MHNs working there. This study is also descriptive and single site and this may not be reflective of the diabetes education and skills needs of other mental health trusts, nor of the experiences of diabetes care of MHSUs.

Similarly, mental healthcare is seldom now delivered in a mono-professional way and this project focuses on one particular part of the workforce. Therefore, other mental health practitioners who may give diabetes care are not represented. We cannot assume their needs will be similar due to different professional status e.g. social workers will not require technical clinical skills in diabetes care as they do not have foundation training in anatomy and physiology. This may render the results as having utility value to one part of the workforce only. However, it is recognised that an inter-professional dimension of such a TNA would be required for post-doctorial research in this area.

Data collection

In TNA, surveys are an effective way of gathering data in a short period of time, but the response rate for surveys can be notoriously low. The 66% (n=146) response rate achieved in this study is acceptable, for example, Polit and Hungler (1999) suggest that a response of over 60% is probably sufficient for most research purposes. However, it does not follow that these results from a purposive sample are generalisable to all MHNs.

Another concerning aspect of the quantitative part is the non-response rate to individual questions. It is difficult to explain why some respondents did not supply

basic information while so many other respondents did, or why they chose to be selective in what they answered. This subsequently impacted on the analysis of the data when non-responders were factored in. For example, simple questions such as length of qualification included 13 non-responders, while 20 did not indicate whether they had received formal diabetes training.

Regarding qualitative data collection, table 27 outlines the advantages and disadvantages of telephone interviews. As noted in table 18, telephone interviews may be impersonal and not conducive to getting in-depth information from participants, as there is no immediate visual feedback. However, I felt that the absence of nonverbal cues helped reduce potential respondent bias as interviewees could not be influenced by my facial expressions such as smiling. Furthermore using telephone interviews really tested my active listening skills when interviewing participants and also listening to interview recordings e.g. I recorded instances where participants laughed or sighed as this gave added context to what they were saying.

Table 27 Advantages and disadvantages of telephone interviews adapted from Novick (2008).

Advantages of telephone interviews	Disadvantages of telephone interviews
decreased cost and travel	loss of non-verbal data
ability to reach geographically dispersed respondents	loss or distortion of verbal data
enhanced anonymity of by not seeing participant's face	people may not want to talk about issues over the phone preferring face to face
participant being in their own home	rapport may be difficult to establish due to lack of face to face contact
environmentally friendly which reduced my carbon footprint	deep reflection or probing may not be possible in a telephone call

Technical Issues

One interview was re-arranged due to a poor telephone line. All other interviews passed without technical hitches. The interviews were independently transcribed to decrease the risk of interpretation bias. Recordings were sent to a professional transcription service by recorded post. Each recording had an identification code so that participant confidentiality was maintained. The transcription service reported very good digital recording quality, which minimised data loss. Where the transcriber could not understand what was said they wrote 'inaudible'. When I came across this, I listened to the recording to discern what was said. This led to some words and phrases being recovered.

Discussion of findings

Richards (1999) suggests that it is not easy to get representative views as all constituencies have their bias and opinions change over time. The qualitative interviews examined participant's experiences retrospectively and this may introduce a recall bias where participants recall events that may have happened a few years ago (Bryman 2012). While a state of emotional or psychological vulnerability may affect recall, there is an inherent danger that this could be a convenient way of excluding the experiences or views of MHSUs in research. This research was therefore conducted with MHSUs who were in the community, mentally well and able to give informed consent. However, this study highlights common areas identified by MHNs and MHSUs regarding areas in which MHNs require knowledge and skills in order to meet the challenges of providing diabetes care. This study has illustrated that diabetes care is a growing part of MHNs clinical workload with MHNs reporting providing diabetes care to MHSUs at least weekly. Such frequency of contact for diabetes means that there is a valid rationale for exploring MHNs education and skills needs in this area.

What are MHNs diabetes education and skills needs

The micro examination of MHNs diabetes care skills needs showed a broad agreement between both samples. MHSUs did feel that the biological science and clinical skills aspects of diabetes care were important for MHNs to have. However, from their experiences of diabetes care they felt that this type of education was secondary to education and training in areas such as stigma and negative attitudes, which they viewed as more important. MHSUs felt that their experiences of these negative attitudes constituted a barrier to benefitting from the diabetes knowledge and skills MHNs had. In their experience when they reported clinical symptoms, MHSUs felt that these were minimised or treated as components of their mental health presentation.

MHNs self-evaluation of knowledge in diabetes is assessed only as 'fair' to 'poor'. This finding may indicate an inhibiting factor regarding performance in this area. If MHNs lack basic knowledge in diabetes, this may have consequences for their clinical practice where a lack of knowledge can undermine MHSUs confidence on two fronts; (i) in MHNs diabetes care skills (ii) MHSUs perceptions of the effectiveness of MHNs.

It may not be justifiable to present a 'fair' level of knowledge as acceptable, as the consequences of not recognising signs and symptoms of diabetes will delay treatment and increase the risk of serious complications. However, MHN's unfamiliarity with diabetes, its complications and its complexity, may be a mitigating factor in the level of self-reported knowledge. This would underpin the importance of examining their learning needs in this area. For example, in the Trend (2010) diabetes competency framework, the competency levels range from Level 1 unregistered practitioner, Level 2 competent nurse, up to Level 5 Nurse consultant. MHNs in this study would probably fall somewhere between level 1 and level 2, indicating a need for further training as the problem of diabetes increases.

Furthermore, the term 'care' may have been interpreted broadly by the sample as it was confined to a checklist derived from the literature review on diabetes skills. Therefore, giving dietary advice is given as a form of care as is medication monitoring but the latter is much more technical and requires very specific knowledge and skills whereas dietary advice can be quite generalised and does not require the same level of technicality. Diabetes medication management was regarded as one of the most important training needs in this group and this is very similar to a diabetes TNA by Phillips and Dromgoole (2005a) which found a similar demand for training on oral glycaemic agents and insulin in diabetes practitioners.

Just over half of the MHNs surveyed reported that they had previous training in diabetes care. The results of this research suggest that MHNs are depending on diabetes knowledge and skills acquired as part of their student nurse training; which is essentially a period where they were learning under supervision. This raises important questions regarding clinical competency, professional education and practice. Taken in the context of length of qualification (the mean years qualified is 10.64, and most of the MHNs are qualified over three years) MHNs

- May not be practicing to a competent level which will have implications for practice and education and training
- The currency of diabetes knowledge and skills that may be out of date
- A low perceived clinical credibility of MHNs in basic diabetes care which has reduced MHSUs confidence in the ability of MHNs to help them with their diabetes – as evidenced by MHSU's experiences
- Clinical practice may not be based on the best evidence
- The ethical dimension of practicing outside of one's scope of practice

The results of this research also suggest that there will be a diverse range of levels of diabetes knowledge and skills which may make the provision of education and skills training complex. A critical question will be how to provide suitable learning

experiences to a diverse range of knowledge and skills levels and still keep learners motivated? Therefore, the length of time since previous education may be a reason why the majority of the sample felt a need for more specific training in diabetes care irrespective of their past training, or if they had a general nursing qualification.

It should be noted that one component of diabetes care undertaken by MHNs without prior education and training is liaison with local diabetes services. MHNs reported only a fair to poor knowledge of local diabetes services with knowledge of local diabetes services rated lowest. This may be a contributing factor in some MHSU participants being left with the impression that they were just left to 'get on with it'. This is manifested in the qualitative theme of a split in mental and physical care where two MHSU 'patient' identities emerged, the 'diabetic' who is largely ignored in mental health and the 'MHSU' who is largely ignored in primary care.

This work suggests that a lack of knowledge and confidence in diabetes care may expose MHSUs to an increased risk of complications through treatment delay. If MHNs lack training and confidence they may not recognize signs and symptoms of diabetes. This increases the risk of complications as MHSUs live longer with untreated diabetes (DRC 2006). All MHSU participants had experienced complications associated with diabetes such as hypoglycaemia, peripheral neuropathy and diabetic ketoacidosis, which can be life threatening.

Diabetes complications may be linked to poor compliance with diabetes treatment or poorly managed diabetes care. This research would suggest the latter as a factor in MHSU's experiences and this may be explained by stigma and diagnostic overshadowing. I will illustrate this with a scenario based on the results to explain how low confidence and low levels of past training might contribute to diagnostic overshadowing experienced by MHSUs.

There was a significant difference in the confidence of MHNs with and without diabetes training in identifying signs and symptoms of diabetes in MHSUs. A lack of appropriate knowledge and confidence in identifying signs and symptoms of diabetes may increase the likelihood of MHNs not legitimising symptom reports or investigating them appropriately. For example, drowsiness and lethargy are signs of hypoglycaemia but they are also adverse effects of psychotropic medication. MHNs may default to a mental health narrative when faced with these symptoms as they may have better knowledge or feel more confident with medication side effects than symptoms of diabetes. This may be why MHSUs were more interested in education and training on stigma and diagnostic overshadowing; as they perceived these as barriers to appropriate care, or as a reason why their symptom reports were not believed.

Keeping knowledge and skills current and up to date are central concepts of continuing professional development. This study illustrates that in the context of diabetes, this has not been the case. This study also illustrates the emerging nature of diabetes care and the impact on MHNs workloads. This will entail a critical reflection by individual practitioners and NHS organisations about the current and future learning needs and roles in this area.

One clear concern arising from this study lies in a proportion of respondents reporting not having any type of training in diabetes care yet they are engaged in providing diabetes care to MHSUs. This finding presents a challenge on many levels. Firstly, there is a clinical governance issue where some MHNs are providing care in an area where they have not had prior training. This will have an obvious impact on the quality of care that is delivered but may also constitute a problem for application of biological science and propositional knowledge and clinical skills e.g. the recognition of signs and symptoms of diabetes or the correct measurement for blood glucose levels. There is also the ethical problem for MHNs where they are working outside their scope of professional practice.

However, as MHNs have shown a poor understanding of aspects of diabetes care the converse is also true for generalist practitioners. Phillips and Dromgoole (2005b) found in their TNA of diabetes practitioners a low self-reporting of knowledge in psychological implications of diabetes in most of the professional groups they sampled; 212 GPs, 98 practice nurses, 423 PCT community nursing staff, ten dietitians and 16 podiatrists. This is an obvious 'double-edged sword' and illustrates the importance of inter-professional training and education in diabetes care.

How confident are MHNs in diabetes care?

Bandura (1977) regards self-efficacy as people's beliefs about their capabilities to produce designated levels of performance, determining how people feel, think, motivate themselves and behave. Heale and Griffin (2009) suggest that individuals with low self-efficacy avoid activities that they believe to be outside their capability and only attempt activities that they are able to perform successfully.

Low perceived self-efficacy is a problem in some of the areas of diabetes care giving. Significant differences in confidence were noted between MHNs who had received diabetes training and those that had not in areas such as identifying diabetes, assessing blood sugar levels, diabetes care planning, managing diabetes care in people with mental illness, and giving health education advice regarding diabetes and liaison with local diabetes services. The sample reported that blood glucose monitoring is the most frequent aspect of diabetes care that they engage in but there are varying levels of confidence in doing it. This could have implications for the quality of diabetes care the MHSU receives and also in the health outcomes, given that so many had complications.

Bandura (1977) suggests that people with low levels of self-efficacy have low levels of performance. MHNs without formal training do consider themselves able

to provide care in areas such as general health education and promotion, exercise and weight management. However, these areas of diabetes care can be facilitated through general advice, or as one MHSU participant put it, through “book knowledge”. Yet even in these areas there are recognised problems with self-efficacy. Therefore while these areas are generic areas of diabetes care that MHNs do, they may not do them very well.

Reflective thinking is a key ingredient in the development of clinical reasoning and helping students develop reflective thinking fosters self-confidence (Kuiper et al 2009). Kuiper and Pesut (2004) suggest that self-efficacy has implications for nursing education because increasing perceived self-efficacy will help to narrow the theory–practice gap. Having some knowledge of MHNs self-efficacy in diabetes care is important in curriculum development. However, I also feel that having a MHSU input into the curriculum will give an added experiential context that can help to enhance MHNs efficacy. Robb (2012) suggests that creating a student-centred learning environment and implementing active learning strategies raise perceived self-efficacy beliefs and promote knowledge. I would further suggest that MHSUs experiences can ground the theoretical curriculum in a practical reality.

Can MHSUs experiences contribute to MHNs diabetes education?

It was clear from the interviews that MHSUs experiences of diabetes care were largely negative, in both mental health and primary care settings. However, it is important to recognise that from these negative clinical experiences positive educational and learning experiences can occur when MHSUs views of diabetes education and skills needs are considered.

It was apparent from participant experiences that even basic standards from the Diabetes NSF (DoH 2001a) were not implemented e.g. Standard 2 concerns identification of people with diabetes and Standard 3 concerns empowering people

with diabetes. These study findings suggest that these basic standards were not met. The reason for this is more systemic than nefarious; for example Nash (2010) suggests physical health NSFs and NICE guidelines are not very well integrated into mental healthcare. However, this is not to detract from the seriousness of stigma as a potential barrier to appropriate and timely diabetes care. Therefore MHNs need to be more aware of health policy on diabetes as this will provide them with the framework with which they can effectively structure and promote high quality care.

Stigma

Poor staff attitudes have been identified in some studies as a barrier to accessing physical healthcare (DeCoux 2005 and Robson & Gray 2007). Poor attitudes can lead to less conscientious levels of care, which can negatively affect the care that MHSUs receive. Poor attitudes can be linked to stigma which Goffman (1963:3) defines as an attribute that is deeply discrediting, leading to a spoiling of normal identity.

Stigma is a lamentable reality of mental illness, especially when it is encountered in a professionally educated workforce. MHSUs have found stigma, in the form of negative or discriminatory attitudes of health-care staff, one of their most significant barriers to healthcare (DRC 2006). Stigma is a seductive force and while it features highly in pre and post-registration MHN training and education, participants recalled stigmatising experiences in both mental health and primary care services; feeling that their mental illness diagnosis came more to the fore when trying to get help for their diabetes.

There is evidence of under, and inappropriate, treatment of diabetes in MHSUs (Nasarallah et al 2006, Fryne et al 2005) despite evidence of prevalence and poor outcomes. Explanations for these disparities are not readily available in the

literature, but one cannot consider that there is a conscious decision not to treat a condition like diabetes appropriately. What this research proposes is that participant's experiences of stigma, diagnostic overshadowing and purposeful splitting of mental and physical health can offer alternative explanations for inappropriate treatment of diabetes in MHSUs. These experiences of diabetes care suggest that alternative risk factors for diabetes in MHSUs need to be considered as adjuncts to established risk factors.

Stigma is most probably influenced by a lack of appropriate training and education in diabetes. The quantitative part of this study has illustrated disparities in the currency of diabetes knowledge and skills and the confidence of MHNs in some aspects of diabetes care. Therefore, it is important that education and training changes attitudes as well as increasing knowledge. MHSUs can play an important role in educating MHNs about the reality of diabetes care in order to challenge stigma. In a 2003 interview, the Nobel Economist Daniel Kahneman suggested that,

“People are not accustomed to thinking hard and are often content to trust a plausible judgment that comes quickly to mind.” (Schrage 2003)

Kahneman suggests that we have two ways of thinking that have very different characteristics, which Stanovich and West (2000:658) have, termed *“System 1 and System 2 thinking”*. System 1 refers to our intuitive system, which is typically fast, automatic, effortless, implicit, and emotional. System 2 refers to reasoning that is slower, conscious, effortful, explicit, and logical (Milkman et al 2009).

MHSUs experiences of stigma and diagnostic overshadowing would be reflective of MHNs engaging in System 1 thinking – fast, automatic, non-deliberative, assumptive. This may be a consequence of a lack of up-to-date knowledge that can inhibit confidence and self-efficacy. This in turn leads MHNs, in Kahneman's words above, *“to trust a plausible judgment that comes quickly to mind.”* Therefore, training and education should increase knowledge and skills, which can enable

MHNs to adopt a System 2 approach to symptom reports. Here MHNs would make slower, thoughtful and logical decisions based on their renewed knowledge and reflection on their attitudes towards MHSU’s symptom reports, in order to decrease the risk of delayed treatment, which, in a condition such as diabetes can be extremely detrimental to health outcomes.

Diagnostic Overshadowing

Diagnostic overshadowing is stigma in action. Nash (2011:362) defines Diagnostic Overshadowing (DO) as a process whereby MHSU’s reports of physical symptoms are reclassified as a manifestation of mental illness and not given legitimate status. Therefore, in DO the presence of a mental illness overshadows everything else.

In the context of this study the process of stigma and DO can be illustrated as

Stigma attribute	Discredited individual	Spoiling identity of	Outcome
= Mental Illness	MHSUs incompetent, untrustworthy	= MHSUs = not to be believed, unreliable	Treated as the ‘other’, ‘not one of us’

Figure 16 Illustration of the stigma process

MHSU	Reports physical symptoms	Symptom reports not believed, attributed to Mental Illness	Treatment delay and exposure to risk of complications
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Figure 17 Diagnostic Overshadowing as an illustration of stigma

(Source for Figures 16 and 17 Nash (2013) in press)

Diagnostic overshadowing is a particularly problematic experience in facilitating MHSUs physical care (Jones and Black 2008). McCabe and Leas (2008) in a qualitative study of 20 service users with severe mental illness explored perceived barriers to primary health care. They found that while participants were satisfied with practitioners' skills and confidence, a considerable barrier to care was not having their physical health concerns taken seriously by health-care providers. This is only partly similar to this study as MHSU participants reported not being taken seriously as a component of stigma and diagnostic overshadowing. However, participants did not have a great deal of confidence in MHNs knowledge and skills.

DeCoux (2005) found that the main barriers encountered by MHSUs when trying to access physical care included problems with credibility; nine out of ten participants perceived that staff at hospitals, mental health programs, prisons, or other treatment facilities thought they were "faking" or did not care when they complained of symptoms of illness. MHSUs also complained of not being taken seriously, a lack of own information/education/knowledge of illness and disrespectful behaviour on the part of clinicians. McCabe and Leas (2008) also found participants were dissatisfied with the over emphasis on mental illness when reporting physical symptoms and the lack of holistic care.

Practitioners ignoring MHSUs physical complaints, seems to be a common, yet under-investigated, experience and one that seems at odds with providing holistic care. It was a theme in this research where participants felt;

- physical health reports were not taken seriously,
- feelings that they felt they were making things up,
- healthcare professionals did not think MHSUs had credible symptoms – even in the presence of established risk factors,
- purposively splitting health care needs resulting in non-holistic care.

Mental Health Practitioners' seem to be over preoccupied with mental illness when service users report physical symptoms. This underpins the rationale for having a MHSU voice in this project so that the reality behind the clinical experience of diabetes care could be explored. The similarity in these experiences illustrates the potency of stigma as potential barrier to appropriate care. I would suggest that these experiences are characteristic of a lack of appropriate knowledge and confidence in diabetes care. Increasing knowledge may lead to a change in attitude as MHNs develop a better understanding of diabetes. This may then reduce the likelihood of a default to a mental health narrative when physical symptoms are disclosed.

Lester et al (2005) in a qualitative study using focus groups of patients, health professional groups and mixed investigating patient and health professional's views of primary care for MHSUs found that both groups recognised that it was sometimes difficult to present with, or diagnose physical complaints, once a mental health disorder had been diagnosed. Some GPs suggested this was related to difficulties in communicating effectively with people with serious mental illness. This was another experience of participants, even though one person said that they had never encountered it. Participants in this study did have clinical and medically explainable symptoms that they believe were not investigated because of their mental health history.

Goff (2007) suggests that physicians may question the veracity of complaints made by those with severe mental illness. The questioning of symptom reports is a valid aspect of the clinical interview. However, the questioning of *truthfulness* of symptom reports seems pejorative and a step beyond clinical investigation. This resonates with the experiences of the participants in the research, veracity of symptoms was doubted due to mental illness and this could be considered a manifestation of stigma. Stigma caused a loss of credibility so that MHNs

considered symptom reports unreliable and consequently they were not appropriately acted upon.

How MHNs learn, or how they are taught as students, may be counter-productive in the context of physical health as this might have a negative impact on how their perceptions of MHSUs physical symptoms are reported. The process of DO may be intertwined with MHNs training in two ways. The first has been explored above in relation to lack of knowledge and self-efficacy. A second reason may be the conflation of patient experiences with symptoms of mental illness. For example, lay explanations of physical symptoms may lack medical jargon, be vague, unclear and sound strange. Normally this is not a problem as practitioners in fields such as diabetes can become used to the lay vernacular and interpret what is said with appropriate meaning or obtain necessary clarity through paraphrasing and reflecting patient reports in more clinical language. However, in a mental health setting reports of vague, unclear and strange physical experiences can be easily misconstrued as delusional beliefs. MHNs are trained not to agree or argue with delusional beliefs as this might reinforce them. The conflation of vague symptom reports, or experiences, with delusional beliefs may prevent screening measures such as a blood glucose measurement for fear of reinforcing 'delusional' beliefs.

Poor liaison leading to a Mind/Body split

Primary care is an important component of diabetes care and it is much more oriented and resourced to deal with it. Which makes the findings of poor liaison and poor knowledge of local diabetes services seem strange. However, there is evidence of problems in the interface between primary care and mental health where care gaps can lead to patients getting poorly co-ordinated care or falling through the net altogether (Druss 2007).

This study has found problems with the interface between mental health and primary care services relating to poor knowledge and confidence of MHNs

regarding local diabetes services was low. The lack of integrated care in conditions such as diabetes runs contrary to best practice but a lack of involvement seems common in such cases e.g. Oud et al (2009) found a lack of GP involvement in MHSUs treatment plans; only 12% (n= 23) out of 186 GPs agreed they were involved.

Oud et al (2009:6) stated that their study found that the

“...collaboration between GPs and mental health specialists in chronic cases leaves much to be desired. There is no cohesion in the care given.”

This study concurs with this. While some diabetes care was given, it was not delivered in an integrated way, which increases the risk of a lack of continuity of care. This can have a great impact on the quality of care given and the outcomes for patients for complex long-term conditions such as diabetes. For example, Cabana and Jee (2004), in a systematic review found sustained continuity of care improved quality of care and receipt of preventive services for patients with chronic conditions such as asthma and diabetes.

Levinson-Miller et al (2003:1159) used interviews to explore MHSUs perceived barriers to primary care. They found that around 40% (n=21) of respondents indicated that coordination between their medical and mental health caregivers was poor, 45% (n=23) said that their mental health provider did not ask them about medical issues, and 39% (n=20) said that their medical provider did not ask about mental health issues. Furthermore, overall experience of medical care quality was poor. This is similar to the experiences of service users in this study. However, while Levinson-Miller et al (2003) findings were suggestive of poor integration of care, this study suggests that there is a purposive splitting of mental and physical health.

This study has found what appears to be a splitting of both complex long-term conditions, which has resulted in two distinct illness identities, or labels; (i) the diabetic and (ii) the mental health service user. The outcome of this separation is that the MHSU is largely ignored in primary care and the 'diabetic' is largely ignored in mental healthcare. This prompted participant's concern at the lack of integrated diabetes and mental healthcare.

Poor liaison and the mind/body split may be explained by the low levels of confidence of MHNs in liaison with local diabetes care services and their self-reported lack of knowledge of diabetes services. Such liaison also featured highly on the self-assessed education and skills needs requested by MHNs. Bridging the divide between mental and physical health was a clear participant desire and also a clear learning need for MHNs because the separation of mental and physical health contributed to a feeling of a lack of whole person care. This has the potential to impede continuity of care or the development of care partnerships, which MHSUs desired.

In exploring MHSUs experiences of healthcare, Kai and Crosland (2001:732) found two areas that contribute to positive service user evaluations

“The development of good therapeutic relationships with professionals and good continuity of care was regarded as central to quality of care.”

These views are similar to those expressed by MHSU participants in this study where they needed to have therapeutic relationships with MHNs so that they could work in partnership, rather than surrendering their diabetes care to MHNs. However, MHSU participants felt that at times of mental health crisis MHNs would need to be more proactive and manage diabetes care, but this would revert to partnership working once the mental health crisis had passed. Kai and Crosland (2001) found MHSUs became frustrated with the lack of continuity in care and that this could have an adverse effect on health. There was certainly some evidence of a lack of integrated diabetes and mental health care noted by MHSUs and lack of

knowledge and confidence in liaising with diabetes services was recognised by MHNs.

Therefore, while the biological and clinical science knowledge is important MHNs would need to know about the organisation of local diabetes care services to include aspects such as referral procedures, types of services MHSUs can access and how to set up joint care plans. This would also entail MHNs acting as advocates in order to prevent vulnerable MHSUs falling through the care net, or improving the quality of care that MHSUs with diabetes receive.

Critical reflection on my own learning

The findings from this project have been an epiphany for me. In seeking to determine MHNs skills and training needs, I was probably unconsciously leaning towards the professional (biological science and clinical care) nursing aspects of this. Therefore, themes of clinical skills, knowledge and confidence came more to the fore. It was only when I examined MHNs education and skills needs from a MHSU perspective that I found a wholly different emphasis on the subject. MHSUs did find knowledge and skills important but they felt that stigma, negative attitudes, diagnostic overshadowing and splitting physical and mental health care needs as more important to them. To paraphrase one participant, “why teach these skills if they don’t believe me when I tell them I am unwell?”

This is the first time that I have used mixed methods research as a method of investigation. I found the pragmatic aspect of using what works attractive and indeed, in this area it proved to be more suitable than a mono-method. However, I feel that I may have been too caught up in the epistemological debate especially about the quality aspects of the study. I think it will take another few mixed methods projects before I can reconcile the pragmatism of the approach with my own epistemological doubts.

A lot is written about critical reflection in nursing. This project has re-taught me the value of critical reflection in my academic career. This should move beyond the confines of learning outcomes and the student learning experience in the classroom and into the experiences of MHSUs on the receiving end of care in their living room. I will examine this further in the recommendations and products of the research that follow this section.

I found exploring MHNs education and skills needs from the MHSU perspective very challenging professionally. I must admit to a sense of disappointment that the participant's experiences were negative. However, when I was reflecting on this I really came to appreciate the power of stigma and how we can be unwittingly affected by it. Therefore in my own academic work and writing I have taken more of a focus on stigma and diagnostic overshadowing in MHN learning and practice in this area. While MHNs expressed a need for education and skills in the conventional aspects of diabetes care e.g. risk factors such as diet, lifestyle, adverse drug reactions and sedentary lifestyle, I have begun to highlight unconventional risk factors such as stigma and how this can affect MHSUs physical health.

Eraut (2003:1) states that,

“...the most dangerous assumption in the professions is that being qualified implies that one is competent”, further suggesting “that organisations usually claim that employees possess prerequisite occupational skills”.

These assumptions have been key motivating factors and drivers for this project. There appears to be an assumption that MHNs, because they are nurses, have the prerequisite skills to take on and sustain the physical care agenda in mental health. The results of this project would suggest that there is a variable level of occupational skills and equally important, confidence. The findings would seem to

suggest that there is a lack of contemporary and up to date occupational knowledge and skills given the length of time training had occurred. However, there is certainly a lot of motivation on behalf of MHNs to learn more about diabetes care as their current knowledge and skill levels are low and do require improvement. It also shows that this can have an impact on the care that MHSUs have, which this study has found to be patchy, to say the least. These assumptions should not be a restraining force in NHS organisations critically examining the preparedness of MHNs to take on and sustain the physical health agenda, especially in complex areas such as diabetes care.

This research would concur with Jordan and Reid (1997) regarding the context in which MHNs are taught biological sciences and physical care skills. These are very important if under-appreciated areas of MHN curricula. For example at undergraduate level such teaching is usually undertaken from a general adult perspective which might lead to a depreciation of importance for MHNs as they may not see the benefits of this knowledge to them. Furthermore this study would amplify Jordan and Reid's point to include mental health specific contexts such as stigma and negative attitudes and how these might act as barriers to appropriate care for MHSUs and barriers to MHNs actually using the physical care skills and biological sciences knowledge that they are being taught.

Stiles (1999), suggests the use of reflexive validity – did the research outcomes change the investigator's understanding or the theory – as a criterion of validity. I have found the input and experience of working with MHSUs to be very valuable and a challenge to my own practice. Their experiences have added a unique insight to the realities of living with a mental health problem and how this can affect physical health needs. There is an inference in Higgins et al (2011) study that MHSU input into curriculum would be seen as a low-level type of involvement, akin to tokenism. This research would take a contrary view of this as without the MHSU specific input the curriculum would be heavily weighted to professional education needs and not MHSU needs. This work would emphasise the point that

involvement in curriculum planning would make for a fundamentally sound curriculum that other, more visible aspects of MHSU involvement, could be facilitated e.g. teaching or assessment.

Recommendations and Products of the research

This section will use the results of the project to make recommendations that can enhance the process of identifying MHNs education and skills needs. It will also examine the products of the project and how the project is striving to change practice in this area.

It may well be that issues of poor practice can travel faster than issues of good practice and this could be a result of the results driven world we find ourselves in, whether we are in academic or clinical practice. Certainly, service users on the end of poor practice can often feel powerless to change. Research by Adams et al (2012) suggests reluctance and even a fear, to disagree with practitioners and this could lead to poor adherence. Therefore asking 'patients' about their experiences can lead to an enrichment of education as incorporating MHSUs experiences can help practitioners engage in more critical reflective practices.

Recommendation 1:

Involve MHSUs in exploring practitioners training needs

MHNs require training in diabetes care. However, such training must take into account of MHSUs experiences of diabetes and diabetes care in order for it to transform practice in this area. Happell et al (2011) suggests that MHSU participation in the education of mental health professionals has been identified as a positive strategy in addressing negative attitudes. Involving MHSUs in exploring

MHNs education and training needs is a novel extension to the body of research surrounding the use of MHSUs in MHNs education and training. This step would precede involvement and would help in early identification of negative attitudes that could be used educationally.

Involving MHSUs in exploring practitioners training needs would show a commitment to the concept of involvement at NHS and HEI organisational levels. This would enable the curricula to be more holistic by including MHSU needs as end recipients of the education. For NHS organisations MHSU involvement in TNA would enable their organisations to be more responsive to the needs of service users. This would enable them to be proactive in identifying training needs rather than reactive – which was how my original DProf projects came about. A benign assumption is that MHSUs have a positive contribution to make to MHNs education and training. However, this research, along with others mentioned throughout the work, would suggest that MHSUs have a unique contribution to make and we should actively seek their help and support with this.

Recommendation 2:

Involve MHSUs in the delivery of education and training

Research shows that testimonies of service users about their experience of mental health problems and of their contact with a range of services had the greatest and most lasting impact on the target audiences in terms of reducing mental health stigma (Pinfold et al 2005). Happell et al (2011) suggest MHSU participation challenges the traditional power base of the health professional, which gives preference to the clinical voice. This was certainly true of this project where the MHSU voice added an unexpected dimension to MHNs diabetes education needs. However, while content is important, it would be more credible if some of the MHNs education and skills needs could be met by MHSUs. For example, service

users could be involved in classroom delivery of education or as role-playing participants in clinical skills training.

This project illustrates some deficits in MHN confidence and I would suggest that MHSU input into training could lead to improving confidence especially in role-play situations for clinical skills. This would allow MHNs to enhance their skills and confidence in a safe environment and they could draw upon these experiences when they reflect on practice.

Repper and Breeze (2007) suggest that if MHSU involvement in training and education is to facilitate services that reflect the wishes and priorities of the people using them, then it must be developed in partnership, across education and service delivery. As illustrated earlier, MHSUs can give unique insights into the processes of care. As such it is anticipated that using MHSUs experiences of stigma can encourage deeper or more critical reflection as part of MHN education.

Recommendation 3

Ensure MHNs have a mandatory review of physical skills education and training needs as part of their yearly performance review

Sometimes research findings can present challenges to organisations, especially where change is recommended. For example, this study has found that a small proportion of MHNs are providing diabetes care without prior education and training. Therefore there is a challenge to NHS organisations of how they identify and meet MHNs training needs in the emerging and important area of physical healthcare.

This project recommends that the yearly MHN performance review, linked to the Knowledge and Skills Framework (DoH 2004) specifically focus part of the review on physical care skills and education needs. Specifically targeting physical health training in Individual Performance Reviews will illustrate commitment to developing practitioner's knowledge and skills in this area. This would also encourage MHNs to more critically reflect on their professional development needs and also encourage NHS Mental Health Services to be proactive and show leadership in this area.

Recommendation 4

Challenging stigma: Leadership and Values Based Practice

It does not take much for a mantra to become a cliché. Stating that stigma is a reality of mental illness seems such a case in point. It seems defeatist as we recognise that stigma is a problem yet we may shrug our shoulders and say there is nothing we can do because of the scale of it. I think that using MHSUs experiences in training and education in this area is a way of illustrating how we can challenge stigma and be more proactive in combating it. I also think that the process of TNA used here (which included MHSUs views) is a way of balancing the curriculum so that it tries to meet all stakeholders needs, rather than one particular group.

Values based practice is defined as

'the theory and capabilities for effective decision making in health and social care that builds in a positive way on differences and diversity of values' (Woodbridge and Fulford 2004:16).

However, this definition might seem narrow if one confines it only to practice settings and I consider it important for my own leadership that I can use VBP in my own professional and academic work. VBP is a concept that when applied to my

practice needs to be exhibited in many arenas due to the diversity of situations where leadership may need to be displayed.

Woodbridge and Fulford (2004) further state that values-based practice is a way of working with complex and conflicting values in medicine based primarily on learnable clinical skills. However, I would take this a step further and suggest that values should not only be taught but that those on whom we will use what we have been taught are included in developing the educational curriculum. Learnable clinical skills will increase efficiency in completing tasks, but in modern healthcare, patient experience – how the experience of the symptoms or conditions that warrant the use of the learnable clinical skills – is also required in order to balance the evidence based practice with the values based practice.

I feel that in my own academic career I see myself as an emergent leader, someone who is beginning to, or would like to, take on a formal leadership role. This ties into the “quiet leader” as suggested by Mintzberg et al (2002). One way in which I have begun to show leadership in this area is by starting an anti-stigma campaign aimed at healthcare professionals. The name of the campaign is CME. CME stands for, **C**linically and **M**edically **E**xplainable, which is what many of the symptoms that MHSUs report are but due to stigma and diagnostic overshadowing they are recast as manifestations of mental illness. MHSUs complain that they are not seen, it is only their mental illness that is seen. Hence, CME.

To date I have networked with various mental health activist groups seeking advice and support for this campaign. I have co-authored a paper with Rethink Mental Illness England on diagnostic overshadowing and this has been illustrated with experiences of their activists. This paper has been submitted for publication and is currently undergoing peer review (see appendix 1).

I have also written a booklet on type-two diabetes for MHSUs so that it might increase their health literacy in this area. It is a basic information booklet, which they can speak to their MHN or diabetes nurse so that it can be explained more to them. The booklet has been sent to a MHSUs group for them to seek feedback from members with diabetes. It will be published under the CME project and will be freely available to service users (see appendix 12)

Recommendation 5

Develop MHSU specific diabetes guidelines

The National Institute of Health and Clinical Excellence (NICE) (2008:6) suggests that type 2 diabetes care should be patient centred and that

“...good communication between healthcare professionals and patients is essential...supported by evidence-based written information tailored to the patient’s needs”.

MHNs, with their highly developed communication and observation skills, are well placed to develop such patient centred care. However, they need to recognise that stigma and diagnostic overshadowing may constitute unwitting barriers to care. One way of developing such guidelines would be advocating for Expert Patients Programmes in this area in line with government policy. Government already recognises that patients are...

“in fact, “experts” in their own right for they have acquired the life skills to cope with a chronic condition and have the potential to be confident partners with professionals in their care (DoH 2001c:13).

MHSUs with diabetes are experts by experience and they should be involved in developing joint guidelines for the management of diabetes can give a more MHSU oriented perspective and contribute to more integrated and holistic practice in this area. The other advantage of such guidelines would be to give a structure

to any education and training as it can be linked directly to practice. This tripartite collaboration of HEI institution, MH organisation and MHSU is one way of ensuring that educational courses and clinical practice are truly fit for purpose, meeting the needs of all stakeholders.

Recommendation 6

Specific investigation of MHSUs experiences of diabetes screening

In light of the cardio-metabolic adverse drug reactions of second generation antipsychotics, the British National Formulary (BNF) (2013:228) has included aspects of monitoring blood glucose levels in screening for type two-diabetes. Unfortunately, research shows that, despite increased risk of diabetes and cardiac side effects, cardio-metabolic screening and monitoring is poor (Healthcare Commission, 2007, Taylor et al 2004). Laundon et al (2012:380) found that “despite consensus statement recommendations for lipid monitoring, studies indicate that up to 90% of patients still do not have a baseline lipid panel prior to prescription of a second-generation antipsychotic”. They went on to note in their own retrospective study that “...even in an academic setting with active discussions among psychiatrists regarding issues of metabolic risk and appropriate monitoring, adherence to American Psychiatric Association/American Diabetes Association consensus statement recommendations on rates of baseline lipid monitoring is disappointingly low in the absence of systems to encourage or automate best practice (p380).

While not an aim of this current study, future research would address the specific experience of adverse drug reactions and their role in the MHSUs experience of diabetes. This would include whether MHSUs have received the recommended levels of blood glucose screening, cardiovascular screening and screening for retinopathy and peripheral neuropathy. While covered to some extent in the TNA a more thorough investigation of MHNs knowledge and practice in implementing the

BNF monitoring guidelines would give a deeper understanding of education and skills needs in this area. On reflection more information on weight-gain and insulin use may have enhanced the narrative of experiences of diabetes and diabetes care. This would be informed by service users' experiences of the screening, indeed if it even occurs.

How has the research contributed to practice development?

I would characterise my DProf as a living process of work based learning and research activity. My work has been widely disseminated through my communities of practice. Reports have been sent to the NHS trusts the final project took place. My research has also been published in peer-reviewed publication and presented at national and international conferences as oral concurrent and poster presentations.

Having the research published and presented at conference has enabled it to be disseminated to a wider audience outside of the academic award. This has been a rewarding aspect of the work with the various email correspondence that I have embarked upon and the networking links I have cultivated. The list of products of this research includes;

Nash M (2012) Mental Health Service Users Experiences of Diabetes Care. Concurrent oral presentation to the National Psychiatric Nursing Research Conference Oxford 2012 (see appendix 14)

Nash M (2012) Mental Health Service Users Experiences of Diabetes Care. Peer reviewed paper submitted for publication (see appendix 15)

Nash M (2013): Diagnostic overshadowing: A barrier to physical care for mental health service users. Peer reviewed paper submitted for publication (see appendix 1)

Nash (2011) Detecting diabetes in the mentally ill Diabetes Professional Vol.7, Iss.4, pp8-10 Autumn 2011

This article also included a front page spread and an editorial on diabetes in vulnerable groups. Furthermore it was commended by Headline (The National Media Monitoring Programme for Mental Health and Suicide) in Ireland as an article that promotes a positive image of mental health problems (see appendix 13). Following on from this I am now working on a project with Voluntary Sector Non-Governmental Organisations (NGOs) exploring MHSUs experiences of stigma and diagnostic overshadowing when seeking general/medical care in Ireland.

Nash M (2009): Exploring Mental Health Nurses Diabetes Care Skills: A Training Needs Analysis, British Journal of Nursing, Vol.18, No.10 p626 – 630 (see appendix 2)

Nash M (2009) A Training Needs Analysis of Mental Health Nurses Diabetes Care Skills Concurrent oral presentation to the National Psychiatric Nursing Research Conference Oxford 2009

Nash M (2007) A Training Needs Analysis of Mental Health Nurses Diabetes Care Skills Poster presented at International Nursing Research Conference Trinity College Dublin (see appendix 16)

Nash M (2008) Presentation for Mental Health in Higher Education Conference “Let’s Get Physical” 22nd May 2008 (appendix 17)

Conclusion

This study has explored the training needs of mental health nurses in relation to diabetes care. The qualitative/constructive method was used as a 'foil' to balance the quantitative/positivist approach of the survey. This was chosen to ensure that there would be added depth to the quantitative data through MHSU experiences.

Although diabetes is a clinical practice concern in mental health, MHNs diabetes education and skills needs remains an unexamined area of research and practice. Therefore, the author makes no claims about how generalisable these results are. Richards (1999) recognises that one way we can enhance the quality of patient care is by listening to their views. I would suggest that this study has extended this sentiment by exploring the unique contribution that service users' experiences can make to the development of education and training.

MHSUs experiences would suggest that MHNs need to reflect on stigma and diagnostic overshadowing when providing diabetes care to MHSUs. While education in clinical signs and symptoms of diabetes would be important, a reorientation in the theory of stigma and how it can affect diabetes care is also required. There would be little point in teaching biological science and clinical theory/skills if MHNs do not act upon reported symptoms, in the presence of associated risk factors, due to diagnostic overshadowing or stigma. It would seem that stigma is a little studied risk factor in the poor diagnosis and subsequent prognosis of diabetes in MHSUs.

Caracelli and Greene (1997:5) suggest that using mixed methods is a good idea however it may not be good science. The findings of this study would suggest that using a mixed methods approach was justified as MHSUs experiences can make a substantial contribution to the evidence base of teaching and curriculum

development in this area. While the biological science and clinical practice aspects of professional education and training are important, the unique experiences of MHSUs can help to clarify and deepen the learning and understanding in this area. This is important for developing partnership and collaboration, which are key factors of diabetes care.

The DRC (2005) found one of the most significant barriers to health care identified by respondents was the perceived negative or discriminatory attitudes of health-care staff. Lawrence and Kisely (2010) state that there is increasing evidence that disparities in healthcare provision contribute to poor physical health outcomes suggesting healthcare provider issues, including pervasive stigma associated with mental illness, a contributing factor to poor physical health. People with severe mental illness are at an increased risk of developing type 2 diabetes for a number of reasons. However, one of those reasons should not be stigma or diagnostic overshadowing.

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Appendix 18 Literature Search Strategy

CINHAL Literature Search


Search Terms	Results	Used
MHN & TNA	35	6
Psychiatric Nurse & TNA	27	6*
MHN & LNA	7	0
Psychiatric Nurse & LNA	4	0
CMHN & TNA	12	5*
CMHN & LNA	1	0
CPN & TNA	9	3*
CPN & LNA	1	0
MHN & TNA Diabetes care skills	10	2*
Psychiatric nurse, TNA & Diabetes care skills	4	2*
CMHN & Diabetes care skills	3	2*
CPN & Diabetes care skills	1	0
MHSU & diabetes & care experiences	31	1

* These searches include the same matches of Jordan et al 1999, Jordan 2000 and Nash 2005, 2006, 2011

Pubmed Literature Search

Search	Query	Items found
#24	Search (#22) AND #16 Filters: 1982/01/01 to 2011/12/31	11
#23	Search (#22) AND #16	14
#22	Search mixed methods research	48599
#21	Search (#20) AND #16	17
#20	Search diabetes	449865
#19	Search (#17) AND #16 Schema: all	0
#18	Search (#17) AND #16	0
#17	Search (experiences) AND diabetes	1671
#16	Search mental health service user	1065
#15	Search ((#13) AND #3) AND #1 Schema: all	0
#14	Search ((#13) AND #3) AND #1	0
#13	Search community psychiatric nurse	4109
#11	Search community mental health nurse	4755
#12	Search ((#11) AND #3) AND #1	1
#10	Search (#8) AND #3	5
#9	Search ((#8) AND #3) AND #1	1
#8	Search psychiatric nurse	23446
#7	Search ((#5) AND #3) AND #2 Schema: all	0
#6	Search ((#5) AND #3) AND #2	0
#5	Search learning needs analysis	1931
#4	Search ((#1) AND #2) AND #3	2
#3	Search diabetes care skills	793
#2	Search mental health nurse	25579
#1	Search training needs analysis	12359

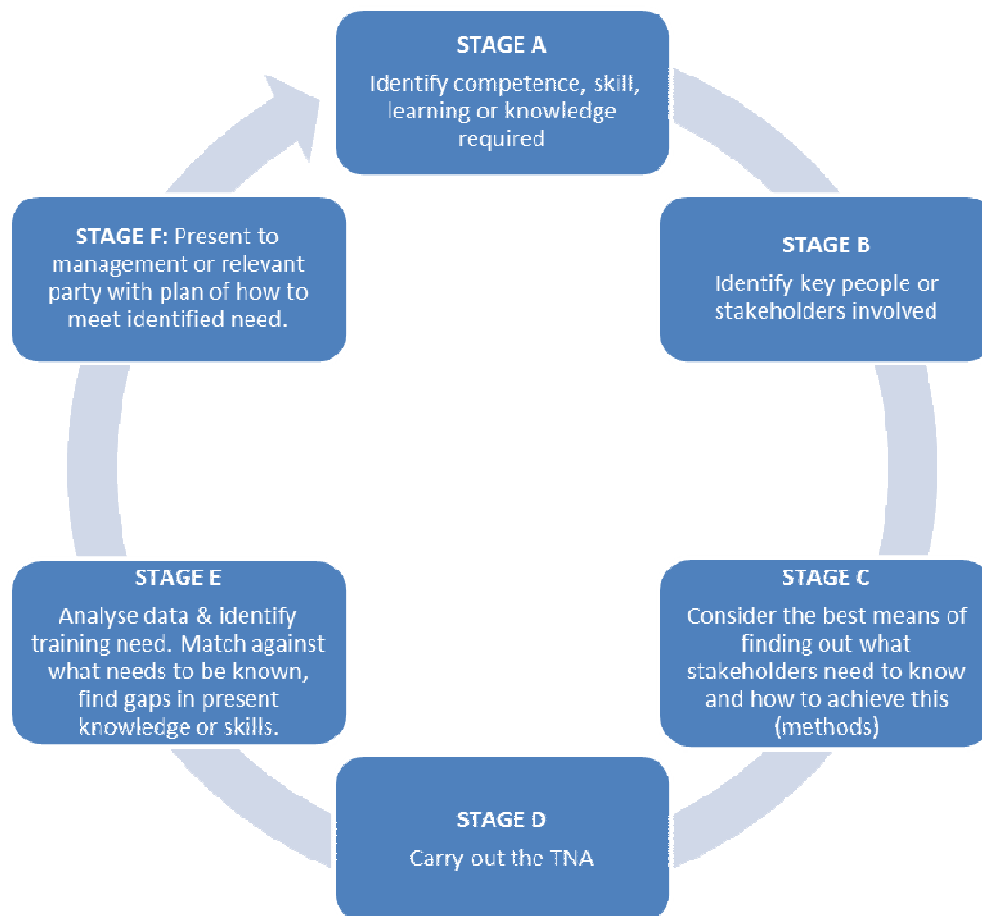
OVID Journal Search

# 	Searches	Results
1	mental health nurse.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	2557
2	training needs analysis.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	260
3	diabetes.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	863918
4	1 and 2	4
5	1 and 2 and 3	3
6	learning needs analysis.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	52
7	1 and 3 and 6	0
8	community.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	873751
9	1 and 3 and 8	132
10	community mental health nurse.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	269
11	2 and 3 and 10	0
12	psychiatric nurse.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	3732
13	2 and 3 and 12	0
14	community psychiatric nurse.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	864
15	2 and 3 and 14	0
16	mental health service user.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	142
17	experiences.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	359893
18	3 and 16 and 17	7
19	diabetes care.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	25516
20	16 and 17 and 19	0

21	mixed methods.mp. [mp=ti, ab, tx, ct, sh, ot, nm, hw, kf, ps, rs, an, ui]	6399
22	3 and 16 and 17 and 21	1
23	3 and 16 and 17 and 21	1

Appendix 19

Diagram 18 the TNA process adapted from (Pedder 1998, Gould 2004 and Phillips and Dromgoole 2005a)



Appendix 20

MICHAEL NASH - F42929 Interview transcript with significant statements colour-coded

Duration: 29.29 mins

Q If we could look at the scene setting questions and about your background with diabetes, could you just tell me a little bit about it in respect of how long have you had it and the type of diabetes and things like that.

A I was diagnosed with diabetes 2, 2½ years ago, I was in hospital at the time so it was the registrar that was overseeing my care at that time, I'd gone in to A&E because of chest pains and I had blood clots on my lungs and that's how they found out I had diabetes. So I was put on to Metformin at that time but 10 months later I actually had a DKA and now I'm on insulin and they're not quite sure whether I'm type 1 or type 2. So it's kind of debatable, they've done tests but no clear indication is given as yet. *(Note: sig statements on diagnosis of diabetes)*

Q Right and so all, this didn't happen in mental health services, it was in.

A In the medical yeah.

Q Right so in terms of looking of your experiences of diabetes, how did you feel when you were told you had diabetes.

A I guess my first reaction was oh no another thing to deal with and I think I was quite fearful because I wasn't given any information whatsoever before I was discharged from hospital, I was just given the tablets and I didn't know anything about it, I wasn't even given a leaflet so there was a lot of fear around it. *(Note: sig statements on feelings on being told of diabetes)* Shall I go on to the next question Michael?

Q Yeah go ahead yeah.

A I didn't feel that I was going to be, you know you said did you feel trusted to look after your diabetes. *(Note: sig statement stigma)* I suppose I didn't even know how to look after my diabetes at that point and it was only that I'd bumped in to an ex psychiatrist of mine as I was being discharged, that he encouraged me that I would be able to manage it, so then I felt I could look after myself.

Q I suppose the point of that question is that sometimes people with mental health problems, their sort of self-management is taken away from them.

A Yeah.

Q So maybe it wasn't taken away from you but do you feel that the management, was it just forced upon you then.

A Yes, I don't think the medical staff were even aware of my mental health difficulties at that point at all, they were only looking at me from a medical side in the hospital so you know in respect of whether I had a mental health problem and I could cope with my diabetes, the 2 weren't linked in any way.

Q Right, so there was this definite split between the mental health and the physical health.

A Yes it was definitely, you know it was like there were 2 people dealing with those 2 issues as it were. *(Note: sig statement mind/body split)*

Q Right and in terms of looking at your diabetes for question 4, does it get discussed at all during any of your meetings or interactions with mental health staff.

A In terms of, it wasn't at all discussed in my last CPA meeting, it was discussed when I was first diagnosed with diabetes because my GP asked me to check with my psychiatrist whether any of my medications would interfere with my diabetes medication and that was the only time it was discussed. *(Note: sig statement CPA diabetes)* So it was a very, basically that I asked the psychiatrist and he just said no and that was it, there was no actually, no discussion about my diabetes management, how it was affecting my mental health or vice versa.

Q So your GP asked you to do this, your GP didn't actually write to your consultant.

A No, no not at all.

Q And then were you expected to report back to your GP.

A Yes I was and so I told him that my psychiatrist said no, but there was no link up between again the medical or the mental health.

Q Right, well it just seems strange that there is such a big gap or split between the mental and the physical.

A Yeah.

Q In relation to diabetes, so if we moved on and you know looking at mental health nurses because its about looking at, I mean its about looking at mental health nurses but I'm sure this something that can go to all types of people who work in mental health care, what does your mental health nurse do that you find most helpful in relation to your diabetes.

A Well to be honest I've only had one care coordinator.

Q Yeah care coordinator, yeah.

A And I had just, it was a temporary care coordinator who I had just for 2 months because the services were undergoing a reorganisation. So I had a care coordinator for 2 months in this year who actually did ask me about my diabetes and at the time I was feeling very depressed and was having suicidal thoughts and her questions around that was, 1 was I taking my insulin correction and 2 had I ever had any thoughts about using that insulin in terms of the suicidal thinking. So that was the only discussion I had ever had with a mental health care professional in terms of my diabetes and my mental health at that time. Also this year I have been seeing a dietician in the diabetes clinic now at the hospital rather than getting my diabetes only seen by the GP and she has been, the dietician, only the diabetic dietician has been aware of how my mental health and my diabetes are interlinked because my blood sugars, I was having difficulty managing them and she was the one who actually asked me, are you having difficulties with your mental health, are you stressed, anxious etc because she said that could be influencing the readings as well. *(Note sig stat MHN skills needs)*

Q Yes of course.

A But that's the only time that the link has actually been made. No link has been made by the diabetes nurse or the diabetic consultant.

Q Right so within the context of the mental health interaction, it was more about your diabetes and the treatment as a means of self harming.

A Very much so yeah.

Q As opposed to the impact of diabetes on your mental wellbeing.

A Exactly yes.

Q Right that seems quite skewed, would you say?

A Yes, it amazes me, you know, it quite incredible that you know what it says to me I'm never seen as a whole person, you know there's just parts of me that people deal with, you know deal with separate parts that are not one whole.

Q Yeah. So in that respect if we look at your care coordinator, what do they do that you find least helpful.

A To be honest with the care coordinator, in terms of whether I was using my insulin or thinking about using my insulin in that crisis, to be honest I hadn't thought of it and what was least helpful was the thought had then been planted in my mind.

Q Yeah.

A Not that I've ever acted on that or wanted to act on that but that to me was least helpful, that it was actually seen as another way of self harming.

Q Yeah.

A And also what's least helpful is not seeing me as a whole person that has my physical health does actually affect my mental health and vice versa.

Q So there is just this lack of holistic care, seeing the person as a whole.

A Definitely yes.

Q Right, so you ok to continue.

A Yes.

Q So if we could move on to question 7 which is just a list of things, which of the following does your mental health nurse or care coordinator do when helping you with your diabetes.

A Well I would check none of these. *(Note sig stat Micro diabetes management)*

Q None, yeah, right, that's very clear then. So we could move on to looking at basically with your experience of having diabetes and being at times in the care of mental health services, what are your main sources of information regarding diabetes.

A Actually what I use is the diabetes UK forum, a website, I find that very helpful *(Note sig stat info re diabetes)* because people there talk about having, you know mental health problems and coping with their diabetes and taking medications for their mental health as well as for diabetes, so that I found a great source, in fact probably most of my information is from that or from the diabetes UK website. And I do have a friend who also has a mental health problem and diabetes as well so I often talk to her about things as well.

Q And do you find that level of peer support beneficial.

A Very much so yes, I think because first there's identification and there's a real practical support because people have experienced it themselves, so it's more than book knowledge.

Q Yeah and could I ask, do mental health services or mental health professionals feature in your sources of information.

A For diabetes in particular?

Q Yeah.

A No.

Q So you've never had any.

A Not at all, no.

Q Right and so if we look at question 9, how does your nurse or your care coordinator, how do they help you to manage diabetes.

A Well they don't, I don't think they, in fact my new care coordinator, I don't think is even aware that I have diabetes, as far as I know, I haven't actually met with him to be honest with you, he took over my care 3 months ago.

Q Right, so there's no information there.

A No.

Q So in that respect if you look at your experience from being when you were diagnosed with diabetes up until now, do you think that anyone within mental health care that you've come in contact with, do they realise if you're not following a diabetes care plan.

A No, I'm never asked about whether I am following a diabetes care plan or how I'm managing my diabetes or how it might be affecting me in terms of my mental or emotional state, so no I don't think they're even aware that you know I have a care plan for my diabetes.

Q Right so is your diabetes care provided predominantly in primary care with your GP then.

A No it's actually at the moment primary with the diabetes clinic at the hospital.

Q Right and they would liaise with your GP.

A Yes.

Q Would you know if they liaise at all with the mental health service.

A As far as I'm aware no they don't.

Q And would your GP liaise with the mental health service.

A Again as far as I know, I must make this assumption that when I have a CPA meeting in the mental health services, they send a letter but in terms of the GP contacting the mental health services, no unless I ask them.

Q Right, so it seems rather uncoordinated.

A Very (laugh) no coordination I would almost say.

Q So could I just ask as a back question away from the interview, do you think that you depend much more on peer support than you do on the practical service support.

A Yes, yes and it has to be from myself, driven from myself.

Q Right, yeah so you're self motivated.

A Yeah.

Q But is that out of choice or out of just nobody doing it.

A Well it's actually, I think I just did it for survival reasons, you know.

Q Right, well I have a feeling what the next answer is going to be so, how confident do you feel that your mental health nurse or care coordinator has skills to help you.

A Well very low confidence, zero. *(Note: sig stat practitioner confidence)*

Q Zero.

A Yeah.

Q Right, so in that respect I hope you can see what the interview has been leading up to.

A Yes.

Q Its looking at your experience because its easy for me, I'm a lecturer in mental health, it would be easy for me to increase people's book knowledge of diabetes but what I feel is missing a lot is being on the opposite side of the counter.

A Right.

Q So if you were to design an education course for mental health professionals around diabetes, what would be the key things you would put in it.

A Well I think first of all I think its to equip the individual, i.e. the service user with help to access the information that they need because I think the information is out there, its often hard to access the information and then how to use that information and sometimes in using that information you need support and encouragement. And I think always in terms of, for the mental health practitioner just to be aware that it is a whole person that you're dealing with, that has many parts, that are inter related and to actually be aware that when you're speaking to a person, that those interrelated parts do impact each other. You know to make the service user aware that I as the mental health practitioner, if I was the mental health practitioner, am aware that there are various parts. And I think its important that, you know the practitioner is led by the service user about how much input then need and I think the thing is that that mental health practitioner could really help in terms of coordinating, you know the various parts, especially like I've got a care coordinator and the word is even attached to the label of them, in terms of coordinating things, making sure that people are aware, you know that there are various parts of that person that could be impacting on all the different parts, you know the physical, emotional, you know the psychological, you know spiritual, the whole lot, you know. And I think also that if the service user doesn't have the information to be able to give them, you know just the basic leaflet or where they can get those basic leaflets. So yeah it's very much how you an access the information that is out there, where you can find it. For example I also know that there are support groups, you know diabetes support groups, so that kind of information could be given to a service user because sometimes with a service user, especially if I'm in a very bad state, even to access the information can be difficult.

Q Yeah.

A So if somebody actually did it with me, you know not necessarily did it for me but with me, so even to sit down at a computer to go and look at a website, you know.

Q Yeah.

A So yeah that for me, I think is very important.

Q That's excellent and I mean if you yourself were a mental health nurse, what would you do differently for someone like you?

A I think first of all to see that my diabetes is not necessarily a point of self harm, not to see it in a negative. **(Note: sig stat what would you do differently)**

Q Right.

A I think first of all to, first of all find out from the service user what the diabetic care plan is, you know what should be happening and find out what they are managing and where I'm not managing, how could they help me to manage that. You know do I need to be asked regularly if I'm following that care plan, you know in terms of what's going to help me most to follow that care plan so that my physical health is better and therefore will also help my mental health because I find the 2 go hand in hand, from my personal experience.

Q Yeah.

A So a lot of encouragement and support is needed and just awareness. Also sometimes when my mood is down, that is going to be when I have difficulty managing my diabetes care plan, so for example I know when I'm very depressed, that's when I'm wanting to eat the foods that I should rather not eat or am wanting to binge for example. So if I am doing those kind of behaviours, how am I managing my diabetes as well, because you can manage it, you know (laugh).

Q Yeah.

A So that can be, you know they need to be aware of that kind of thing and also just to be, like with the care coordinator to talk, it would have been very helpful for somebody when I had been diagnosed with diabetes, to actually sit down with me and look and talk through if there's going to be interactions between the medication I'm on for my mental health and the diabetes medication **(Note peer support)**. I actually had to take that initiative, if somebody had taken that initiative, you know been a little bit more proactive I think I would have felt less fearful. **(Note: Nurses attitudes)** So yeah.

Q Would you feel that you have a better knowledge of diabetes than the mental health professionals.

A I think they need to have some knowledge yes, because I think, I mean maybe this is, a lot of people that I've met within the mental health situation do have, how can I say, food issues, you know there is a lot of unhealthy weight to be carried and it would be likely that, you know those kind of people are going to get, for example type 2 diabetes as well, so I think they need some awareness of that. I mean I haven't had the experience where I've been an inpatient with diabetes, that to me, you know I wonder about that, how that would be dealt with because you know I mean I take care of my own injections etc and how

they would deal with that. So from that point of view I would imagine they would have to have some idea of diabetes.

Q Right, thanks, are you ok, we're drawing near the end, are you ok to go on.

A Yeah.

Q So if we looked at question number 14, so this is just a range of skills, a range of things that happen within the context of diabetes care, so if I was training to be a diabetes nurse, these are the types of things I would need to do. But in your experience what do you consider the skills that mental health nurses or mental health professionals should have when looking after someone with diabetes.

A I think in terms of for example there's one there, speaking with the diabetes nurse, for me I think there should be some communication, especially if I'm going through a crisis, I think that's very important. *(Note context specific)* I think in terms of also speaking with the GP practice nurse as well, again a communication that, or for example the diabetes clinic, if I'm there. Does the communication, if I'm going through a crisis again, that there should be communication. In terms of I think there should be some awareness of how I do test my blood etc and that I do record it and also just encourage that I am doing that and be aware of whether I am doing it or not. Especially if one is new with, you know newly diagnosed or if they're not prepared to do that, that I have access to the right people to support and help me with that in terms of also my diet and my diabetes medicine. I think it's important that the nurse knows how they can access the right people to be able to help me do that, not necessarily have to do it themselves. *(Note context specific)*

Q Right.

A And I think also just to be aware that my diabetes is mentioned within my care plan, I think that is important because I know at the moment now that isn't mentioned in my care plan and that does concern me. I've actually got a CPA coming up and that's one of the points that I want to be highlighted in my CPA.

Q So generally in terms of how you have had your diabetes looked after or you know in the initial stages and then how you've become more self managing now, do any of these things ring through.

A What, in terms of the points that you've?

Q Yeah in number 14, in terms of the skills, so I suppose now that your self managing you wouldn't want anybody to supervise your meals.

A No not necessarily, but for them to be aware that that needs, you know that I am, and to check that if I do have a crisis point, that I am still self managing or do I need more help to help me manage. You know I think when I am, because I am self managing now, I think the point is more what happens when I'm in a crisis.

Q Right, so could I suggest that maybe the categories in question 14 would be more about raising awareness with mental health nurses that these things may need to be done.

A Yes.

Q As opposed to a mental health nurse actually doing them.

A I would say so yes.

Q Right, that's fine, yeah that's grand. It's just that as I said its easy just opening up a book and seeing the types of things that are done.

A Yes and I think also you know that it's important that the mental health nurses have the support and that they know where to access that for themselves.

Q Yeah.

A You know because I think sometimes they also battle with not having link ups, you know what I mean.

Q Yeah, so I mean if we go on to the last question now, are you ok just to finish off.

A Oh yes.

Q And this is just about how you would rate your own knowledge of these different things, so that's the scale, so how would you rate your own knowledge of symptoms of diabetes?

A I would say its excellent now.

Q Right and how would you rate your own knowledge of how diet affects your blood sugar?

A Also excellent, I've done a lot of reading about that.

Q Right and how would you rate your own knowledge of other physical problems with diabetes?

A I would most probably say its good, I don't have a lot of knowledge about that, you know I'm aware of certain areas but I haven't done, you know got much information about that.

Q And what about how would you rate your own knowledge of diabetes medicines.

A Again I would say good.

Q Good, and then how would you rate your own knowledge of local diabetes services?

A I would most probably say fair there.

Q Right, well that's the gist of the interview, if there's anything that we haven't covered or anything that you feel that you need to mention now, is there anything else that you would like to add that we didn't discuss, that wasn't covered in the little interview schedule.

A No I just think it's a great thing that you're doing, because I think often you know the physical and the mental aren't linked, so I'm just very pleased that people are aware that you know that needs to be linked, so you know I think it's a great thing that you're doing.

Q Excellent, it's been a process of, I'm a mental health nurse by background, I'm not a general nurse but when I seen the extent of the problems with diabetes I thought it was worth investigating both.

A Very much so, I think it's really good, so I commend you.

Q Thanks and thanks very much for helping with the research and taking part in the interview.

A No problem, if you need to contact me again Michael please feel free too.

Q What I was going to say is the stage now, what I'm going to do is the interview will be transcribed and then I'll send you a copy by email for your own records and then what I'm going to do is with all the other interviews, I'm going to do a little bit of an analysis and I'll send that to you as well. And that will be over the next few weeks in relation to getting your comments on what I think. My interpretation of what people have been saying and again if there's any comments that you need on that. So indeed I will be in touch so don't be surprised if you receive an email.

A That's great.

Q And then finally just to say that if you know anyone else that might be interested, please give them my details.

A Right, will do.

- Q** And hopefully within the next week you'll have your interview transcript.
- A Ok great Michael, are you needing a few more people or?
- Q** Well yeah as many people.
- A As many as possible.
- Q** Yeah it's always good to have as many as possible but only if people are willing and only if they feel that they want to talk about it because I mean having 2 complex conditions can be quite daunting to talk about. But I mean thanks very much, you've been very, very helpful.
- A Right, thanks so much.
- Q** Take care, have a good day now...(end)